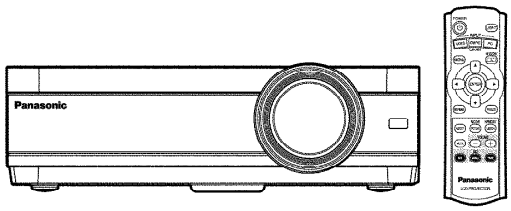
ORDER NO. VED0211335C0

D10

# Service Manual

## LCD Projector

## PT-AE200U / PT-AE200E




## SPECIFICATIONS

The service technician is required to read and follow the "Safety Precautions" and "Important Safety Notice" in this service Manual.

## Specifications

**Power supply:**
100 V - 240 V AC, 50 Hz / 60 Hz
**Power consumption:**
180W [During standby (when fan is stopped): Approx. 1.5 W]
**Amps:**
2.2 A - 0.8 A
**LCD panel:**
Panel size (diagonal): 0.7 type (17.78 mm)
Aspect ratio: 16:9
Display method: 3 transparent LCD panels (RGB)
Drive method: Active matrix method
Pixels: 415 272 (858 × 484) × 3 panels
**Lens:**
Manual zoom (1 - 1.2) / focus lens,
F 2.0 - 2.3, f 22.0 mm - 26.2 mm
**Lamp:**
UHM lamp (120 W)
**Luminosity:**
700 lm/ANSI
**Scanning frequency (for RGB signals):**
Horizontal scanning frequency: 30 kHz - 70 kHz
Vertical scanning frequency: 50 Hz - 87 Hz
Dot clock frequency: 100 MHz or less
**YPBPR signals:**
525i (480i), 625i, 525p (480p), 750p (720p), 1125i (1080i)
**Color system:**
7 (NTSC / NTSC 4.43 / PAL / PAL-M / PAL-N / PAL60/ SECAM)
**Projection size:**
1 016 mm - 5 080 mm
**Throw distance:**
1.2 m - 7.4 m
**Optical axis shift:**
17:1 (fixed)
**Screen aspect ratio:**
16:9
**Installation:**
Front / Rear / Ceiling / Desk (Menu selection method)
**Speakers:**
4.0 cm × 3.0 cm oval × 1
**Max. useable volume output:**
2 W (monaural)
**Connectors:**
**VIDEO IN:**
S2 VIDEO: Single-line, Mini Din 4-pin
Y 1.0 V [p-p], C 0.286 V [p-p], 75 Ω,
VIDEO: Single-line, RCA pin jack
1.0 V [p-p], 75 Ω
**PC IN:**
RGB: Single-line, D-SUB HD 15-pin (female)
R.G.B: 0.7V [p-p], 75Ω
G.SYNC: 1.0 V [p-p], 75Ω
HD/SYNC: TTL high impedance, automatic plus/minus polarity compatible
VD: TTL high impedance, automatic plus/minus polarity compatible
**COMPONENT IN :**
Y: 1.0 V [p-p], 75Ω
PB/CB, PR/CR : 0.7 V [p-p], 75Ω
**AV1 input** (PT-AE200E only) **:** 21 pin terminal
VIDEO: 1.0 V [p-p], 75Ω
AUDIO: 0.5 V [rms]
RGB: R.G.B.: 0.7 V [p-p], 75Ω
SYNC.: 0.3V [p-p], 75Ω
**AUDIO IN :** Single-line 0.5 V [rms], RCA pin jack × 2 (L-R)
**SD memory card slot:**
For SD memory cards
Compatible with DCF-standard still image data
Compatible with MPEG4 moving picture data (audio: G.726 compliant)
**Cabinet:**
Molded plastic (ABS / PC)
**Dimensions:**
Width: 280 mm
Height: 85.2 mm
Length: 278.5 mm (including lens)
**Weight:**
2.9 kg
**Operating environment:**
Temperature: 0°C - 40°C
(when FAN CONTROL is set to "HIGH" 0°C - 35°C)
Humidity: 20 % - 80 % (no condensation)
**Certifications:**
PT-AE200E: EN60950, EN55022, EN61000-3-2, EN61000-3-3, EN55024
PT-AE200U: UL60950, C-UL, FCC

**<Remote control unit>**

**Power supply:**
3 V DC (AAA battery × 2)
**Operating range:**
Approx. 7 m
(when operated directly in front of signal receptor)
**Weight:**
73.5 g (including battery)
**Dimensions:**
Width: 43 mm
Height: 22.3 mm
Length: 135 mm

**Accessories:**

| | | |
|---|---|---|
| **Remote control unit (N2QAFA000002):** | | 1 |
| **AAA batteries for remote control unit** (×2)**:** | | 1 |
| **Power cord:** | **PT-AE200E:** K2CT3FR00001 (U.K) | 1 |
| | **:** K2CM3FR00001 (continental) | 1 |
| | **PT-AE200U:** K2CG3FR00001 | 1 |
| **Video/Audio cable [K2KA2FA00001** (3.0 m)**]:** | | 1 |
| **Carrying bag (TPEP008):** | | 1 |

**Options:**

| | |
|---|---|
| **Ceiling bracket:** | ET-PKE300 |
| **Projection Screen:** | ET-SR90CT (width:1 800 mm) |
| | ET-SR70CT (width:1 400 mm) |

- Specifications are subject to change without notice.
- Weight and dimensions shown are approximate.

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**⚠ WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

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**Precaution**

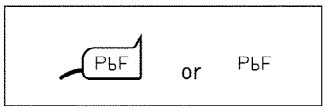
If using this projector at high elevations (above 1 400 m), set the FAN CONTROL to HIGH. (Refer to "Option settings" in Operating Instructions.)
Failure to observe this may cause malfunctions.
Never use this projector at an elevation of 2 700 m or higher.
Using this projector at high elevations, consult your dealer or Authorized Service Center about preparations.

## About lead free solder (PbF)

This projector is using the P.C.Board which applies lead free solder. The use of lead free solder is recommended from the standpoint of antipollution for the global environment in service.
Notes:

- Lead free solder: Sn-Ag-Cu (tin, silver and copper) has a higher melting point (approx. 217℃) than standard solder. Typically, the melting point is 30℃ to 40℃ higher. When servicing, use a high temperature soldering iron with temperature limitation function and set it to 370±10℃.
- Be precautious about lead free solder: Sn-Ag-Cu (tin, silver and copper) will tend to splash when heated too high (approx. 600℃ or higher).
- Use lead free solder for the P.C.Board (specified on it as "PbF") which uses lead free solder. (When you unavoidably use lead solder, use lead solder after removing lead free solder. Or be sure to heat the lead free solder until it melts completely, before applying lead solder.)
- After soldering to double layered P.C.Boards, check the component side for excess solder which may flow onto the opposite side.

About the identification of the lead free solder P.C.Board
For the P.C.Board which applies lead free solder, the symbol as shown in the figure below is printed or stamped on the surface or the back of P.C.Board.




For US

**IMPORTANT SAFETY NOTICE**

There are special parts used in Panasonic LCD Projectors which are important for safety. These parts are shaded on the schematic diagram. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of PANASONIC BROADCAST & TELEVISION SYSTEMS COMPANY.

**WARNING:**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**CAUTION:** Any unauthorized changes or modifications to this equipment will void the users authority to operate.

# 1. Safety Precautions

## 1.1. General Guidelines

**- For continued safety, no modification of any circuit must be attempted.**
**- Unplug the power cord from the power outlet before disassembling this projector.**
**- It is advisable to use an isolation transformer in the AC power line**

**before the service.**

**- Observe the original lead dress during the service. If a short circuit is found, replace all the parts overheated or damaged by the short circuit.**

**- After the service, all the protective devices such as insulation barriers, insulation papers, shields, and isolation R-C combinations must be properly installed.**

**- After the service, check the leakage current to prevent the customer from getting an electric shock.**

## 1.2. Leakage Current Check

**1. Prepare the measuring circuit as shown in Fig.1.**
**Be sure to use a voltmeter having the performance described in Table 1.**

**Fig. 1**

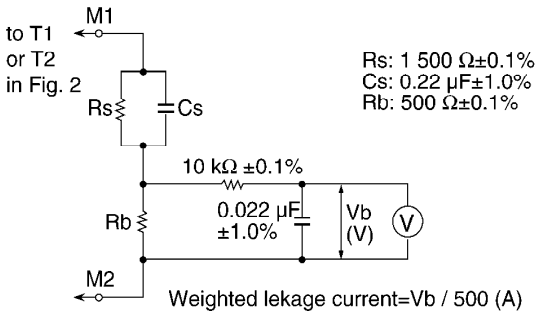
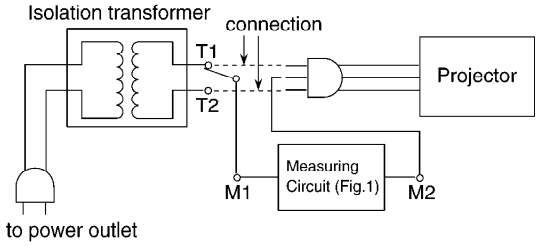



**Table 1**

| | Performance |
|---|---|
| Voltmeter (rms reading) | Accuracy: ≤ 2%<br>Input resistance: ≥ 1 MΩ<br>Input capacitance: ≤ 200 pF<br>Frequency range: 15 Hz to 1 MHz |

**Fig. 2**




**2. Assemble the circuit as shown in Fig. 2. Plug the power cord in a power outlet.**

**3. Connect M1 to T1 according to Fig. 2 and measure the voltage.**

**4. Change the connection of M1 from T1 to T2 and measure the**

voltage again.

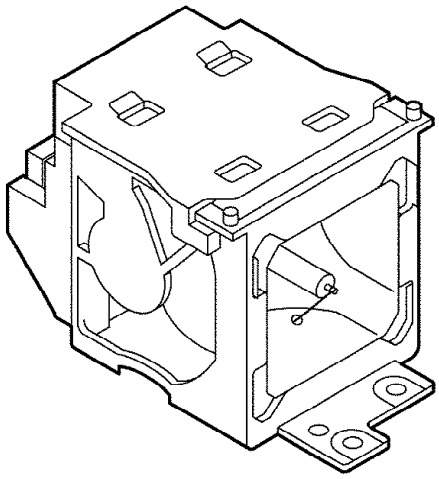
5. The voltmeter must read 0.375 V or lower in both of steps 3 and 4. This means that the current must be 0.75 mA or less.

6. If the reading is out of the above standard, the projector must be repaired and rechecked before returning to the customer because of a possibility of an electric shock.

### 1.3. UV Precaution and UHM Lamp Precautions

- Be sure to unplug the power cord from the power outlet when replacing the lamp.
- Because the lamp reaches a very high temperature during its operation, wait until it cools completely when replacing the Lamp Unit.
- The lamp emits small amounts of UV-radiation, avoid direct-eye contact with the light.
- Because the high pressure lamp involves a risk of explosion, never touch the lamp wire lead during the service. (See Fig. 3)

Fig. 3



# 2. Ext Option

This projector has EXT OPTION in addition to standard on-screen menus.

- There are SELF CHECK, SERVICE MODE and FLICKER ADJ for service, etc.

### 2.1. Procedure to enter EXT OPTION

1. Press "MENU" button on the main unit or remote control unit to

**display "MENU" screen, then select "OPTION" and press "ENTER" button.**

**2. Select "OSD" on "OPTION" menu and press "ENTER" button 3 seconds or longer.**
**MENU →OPTION →OSD**

## 2.2. EXT OPTION Menu and Functions

EXT OPTION

| | |
|---|---|
| FREEZE MSG | OFF / ON |
| PIC.SHIFT | OFF / ON |
| RUNTIME PRT | OFF / ON |
| FAN FULLMODE | OFF / ON |
| AUTO SETUP | NORMAL / SPECIAL |
| SELF CHECK | |
| SERVICE MODE | |
| FLICKER ADJ | |

**- FREEZE MSG**
**Switching ON/OFF "FREEZE" on-screen display**
**- PIC.SHIFT**
**Switching ON/OFF the antipersistence function**
**- Shifts the picture slightly (by one dot) when every 60 minutes. (one dot shifting three times, one dot shifting three times in reverse direction, and repeats them alternately.)**
**- RUNTIME PRT**
**Switching ON/OFF the shutdown when the operation time for the lamp unit is 2 000 hours or longer**
**- FAN CONTROL**
**Setting the cooling fan motor rotation speed**
**- Switching ON "FAN FULLMODE", the rotation level of the fan becomes high-speed rotation (fixed). Moreover, when "FAN FULLMODE" is ON, changing "FAN CONTROL" in OPTION becomes impossible (setting FAN FULLMODE is given priority more than FANCONTROL).**
**- AUTOSETUP**

**Setting AUTO SETUP mode**

**- NORMAL: To set the normal mode (the dot clock is adjusted strictly)**

**- SPECIAL: To set the special mode (the dot clock is adjusted roughly)**

*** Do not change the initial setting (NORMAL).**

**- SELF CHECK**

**To enter the self-check mode**

**- SERVICE MODE**

**To enter the service mode**

**- FLICKER ADJ**

**To enter the flicker adjustment mode**

### 2.3. Canceling EXT OPTION

**Press "MENU" button on the main unit or remote control unit.**

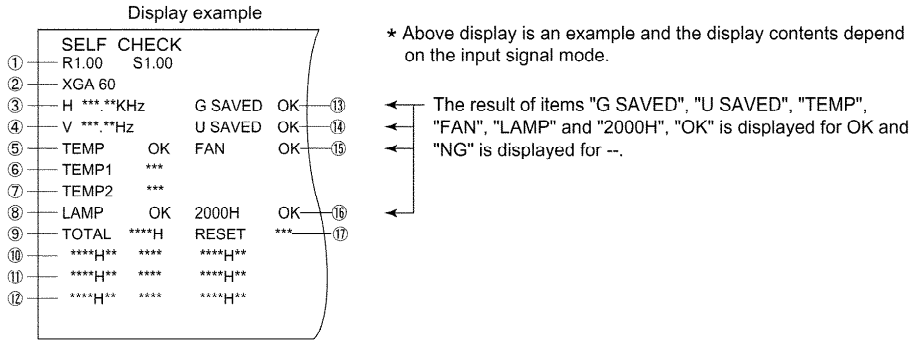
# 3. Self-Check Mode

**This mode is used to narrow down the location of the failure.**

### 3.1. Procedure to enter the self-check mode

**Select "SELF CHECK" on "EXT OPTION" menu and press "ENTER" button on the main unit or remote control unit.**

### 3.2. Self Check Display and Contents


Display example
SELF CHECK
① R1.00 S1.00
② XGA 60
③ H ***.**KHz G SAVED OK ⑬
④ V ***.**Hz U SAVED OK ⑭
⑤ TEMP OK FAN OK ⑮
⑥ TEMP1 ***
⑦ TEMP2 ***
⑧ LAMP OK 2000H OK ⑯
⑨ TOTAL ****H RESET *** ⑰
⑩ ****H** **** ****H**
⑪ ****H** **** ****H**
⑫ ****H** **** ****H**
* Above display is an example and the display contents depend on the input signal mode.
The result of items "G SAVED", "U SAVED", "TEMP", "FAN", "LAMP" and "2000H", "OK" is displayed for OK and "NG" is displayed for --.

| | Display Contents | Remarks |
|---|---|---|
| ① | Microcomputer / SD Software Version Display | Microcomputer (IC1010) and DSC24 (IC5007) software versions are shown from the left. |
| ② | Signal Name | Different display according to the input signal |
| ③ | Horizontal Signal Frequency | RGB or $YP_BP_R$ ($YC_BC_R$) signal reception only |
| ④ | Vertical Signal Frequency | RGB or $YP_BP_R$ ($YC_BC_R$) signal reception only |
| ⑤ | Temperature Abnormality Check | Cause of Lamp Malfunction |
| ⑥ | Thermosensor 1 A/D conversion value (0 - 255) * | Around the LCD panel |
| ⑦ | Thermosensor 2 A/D conversion value (0 - 255) * | Around the air intake slot (Detects air filter's choke, etc.) |
| ⑧ | Lamp Abnormality Check | Cause of Lamp Malfunction |
| ⑨ | Total Usage Time | Projector Cumulative Usage Time |
| ⑩ Current<br>⑪ Second<br>⑫ First | Lamp ON - Cumulative Usage Time / Frequency / Cumulative Usage Time | Cumulative Usage Time (actual time), ON Frequency and Cumulative Usage Time (conversion time for 130 W) of the lamp are shown from the left. |
| ⑬ | Gamma Correction Data Check | It is distinguished whether gamma data is stored in the flash ROM. |
| ⑭ | Color Unevenness Correction Data Check | It is distinguished whether color unevenness correction data is stored in the flash ROM. |
| ⑮ | Fan Stop Check | Cause of Lamp Malfunction |
| ⑯ | Lamp - Judgment for Cumulative Usage more than 2 000 h | Judgment for Replacement Time of Lamp |
| ⑰ | Lamp - Reset Frequency of Cumulative Usage Time | Reset Frequency (0 - 255) |

* When detected abnormal temperature (high temperature around the LCD panel, large difference between temperature at the intake slot and temperature around the LCD panel), TEMP indicator turned on. If arriving at the critical temperature, the power supply will be shutdown automatically and the indicator will flash.

## 3.3. Canceling the self-check mode

**Press "MENU" button on the main unit or remote control unit.**

# 4. Service Mode

**This mode is used to display seven kinds of test patterns [Horizontal lines, Vertical lines, Dots, Crosshatch, White cross, Black cross and White (No pattern)] in the four colors (White, Red, Green and Blue).**

**Note:**

**- On the service mode, displays above patterns by each color without test equipment such as PC or SG. Use the service mode for simplified adjustments by your eyes and so on.**

## 4.1. Procedure to enter the service mode

**Select "SERVICE MODE" on "EXT OPTION" menu and press "ENTER" button on the main unit or remote control unit.**

**Note:**

**- In the service mode, pressing the up-arrow "▲" or down-arrow "▼" button allows the test pattern selection and theleft-arrow "◀" or right-arrow "▶" button the color selection (White / Red / Green / Blue).**

## 4.2. Canceling the service mode

**Press "MENU" button on the main unit or remote control unit.**

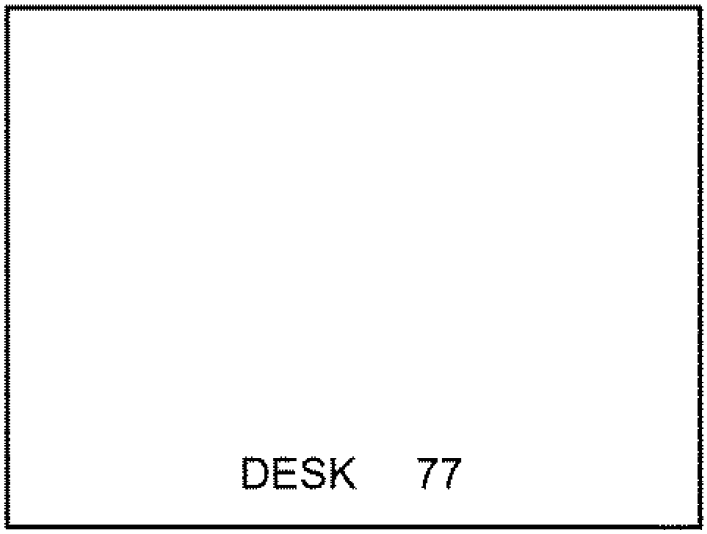
# 5. Flicker Adjustment Mode

**If replacing the optical parts (Analysis / LCD / Lens block) of this projector, enter the flicker adjustment mode and minimize the flicker.**
**Also when replacing the analysis block or A-P.C.Board (assembly), execute 7.6. "Flicker adjustment".**

## 5.1. Procedure to enter the adjustment mode

**Select "FLICKER ADJ" on "EXT OPTION" menu and press "ENTER" button on the main unit or remote control unit.**

**Note:**
**"DESK setting (blue)" is displayed when entering the adjustment mode.**




Adjustment Display when DESK setting

## 5.2. Adjustment Display and Contents

**- Setting value is increased and decreased with the right-arrow "▶" and left-arrow "◀" buttons.**
**"◀": Decrease, "▶": Increase**

- Adjust the setting value to minimize the flicker on the screen.
- Execute the adjustment by 6 patterns below.
- The pattern (adjustment display) is switched with the up-arrow "▲" and down-arrow "▼" buttons.
  "▲": Forward direction, "▼": Reverse direction
- There are 6 patterns of "DESK setting (blue)", "DESK setting (red)", "DESK setting (green)", "CEILING setting (blue)", "CEILING setting (red)" and "CEILING setting (green)".
- The setting value is saved into this projector when the pattern is switched.

### 5.3. Canceling the flicker adjustment mode

**Press "MENU" button on the main unit or remote control unit.**

**Note:**
**When "MENU" button is pressed, the setting value at that time is saved into this projector and the adjustment mode is canceled.**

# 6. Disassembly Instructions

**Warning:**

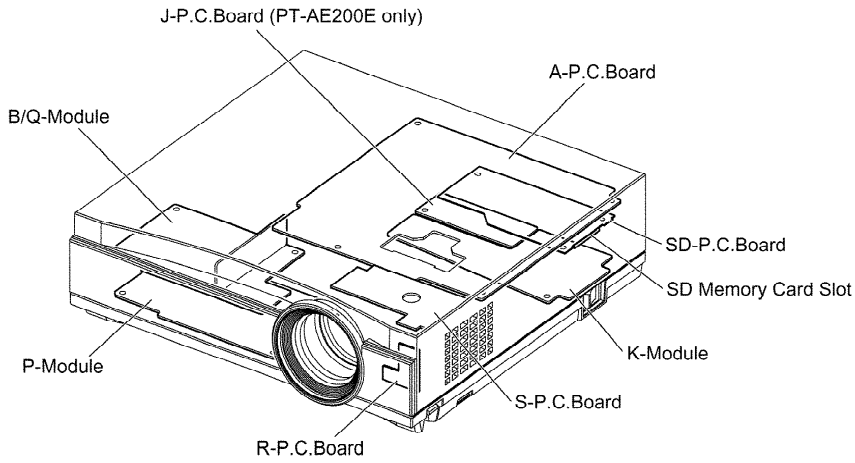
- Be sure to unplug the power cord from the power outlet before disassembling this projector.

**Caution:**

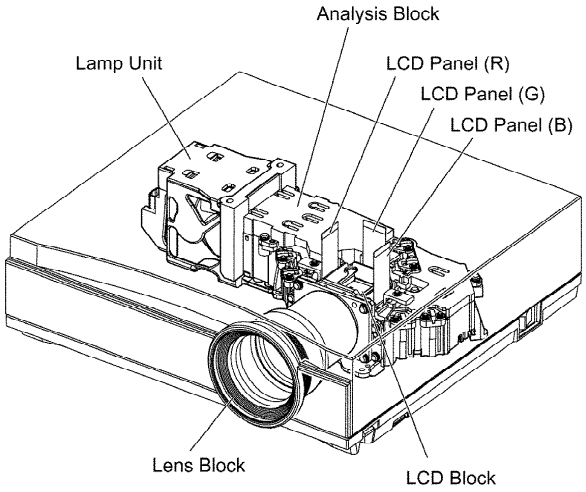
- While turning over a printed circuit board, be sure to put a insulating material under it to prevent a short circuit.
- Printed circuit boards and wires must not be pulled forcibly, but be handled carefully.
- Connectors also must be handled carefully.
- After repairing this projector, be sure to put back the wires and connectors to the original condition.

### 6.1. Printed Circuit Board and Main Parts Location

**Electrical Parts**



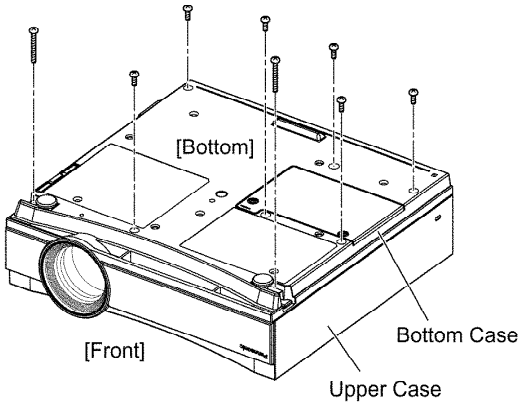

**Optical Parts**




## 6.2. Removal of Upper Case

**1. Turn the projector upside down.**

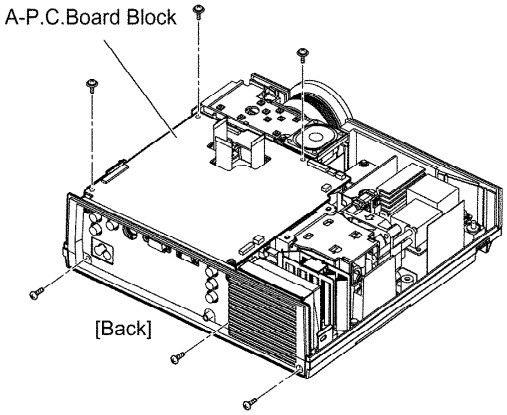
**2. Unscrew the 8 screws fixing the upper case.**



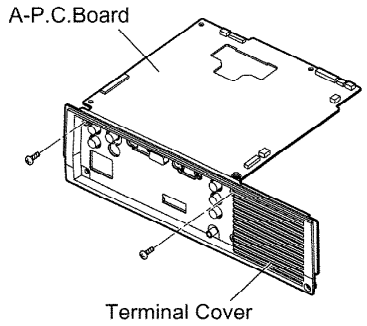

3. Return the projector to the normal position.
4. Remove the upper case.

## 6.3. Removal of A-P.C.Board

1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. Disconnect the connectors from/to the A-P.C.Board.
3. Unscrew the 6 screws and remove the A-P.C.Board block.

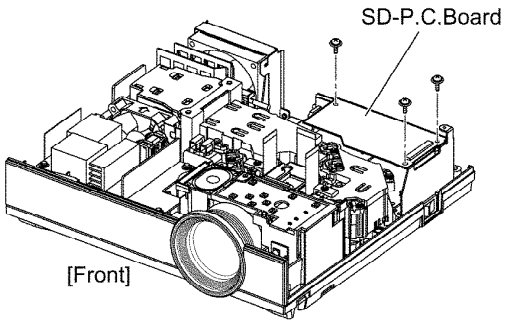



4. Unscrew the 2 screws and remove the terminal cover.



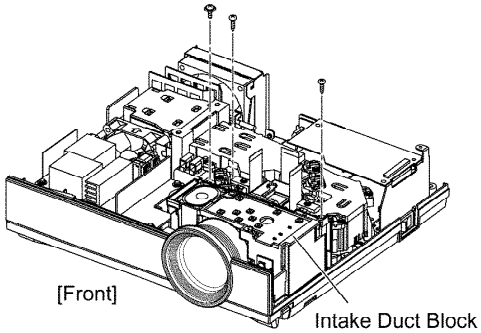
## 6.4. Removal of SD-P.C.Board

1. Remove the upper case and A-P.C.Board block according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".
2. Unscrew the 3 screws and remove the SD-P.C.Board.

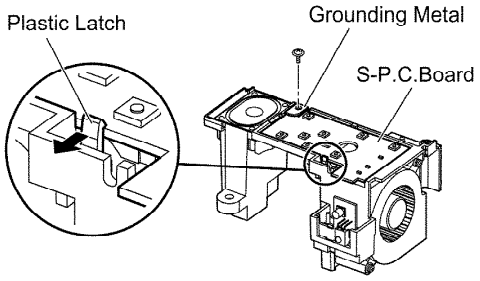



## 6.5. Removal of S-P.C.Board

1. Remove the upper case and A-P.C.Board block according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".
2. Unscrew the 3 screws and remove the intake duct block.




3. Unscrew the 1 screw and remove the grounding metal.
4. While pressing the plastic latch in the direction of arrow, remove the S-P.C.Board.




**Note:**

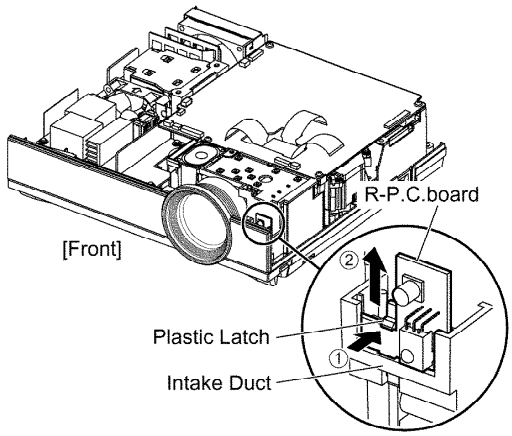
- Work with care because the plastic latch may be damaged if it is overforced.

## 6.6. Removal of R-P.C.Board

1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. While pressing the plastic latch of the intake duct in the direction of arrow (1), remove the R-P.C.Board upward.

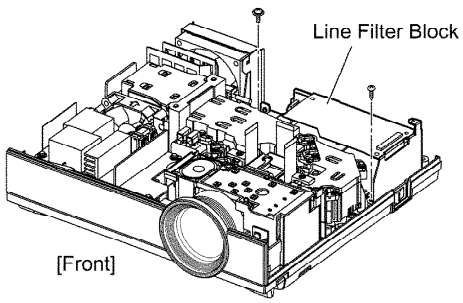
**Note:**

- Work with care because the plastic latch may be damaged if it is overforced.



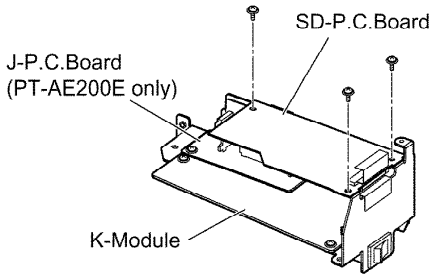

## 6.7. Removal of K-Module and J-P.C.Board (PT-AE200E only)

1. Remove the upper case and A-P.C.Board block according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".
2. Unscrew the 2 screws and remove the line filter block (K-Module, J -P.C.Board and SD-P.C.Board).



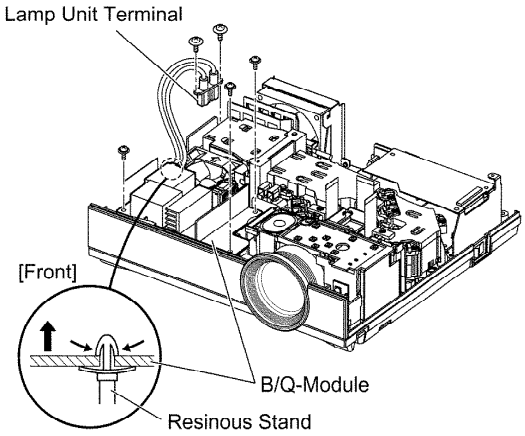

3. Unscrew the 3 screws and remove the SD-P.C.Board (K-Module

**and J-P.C.Board remain).**



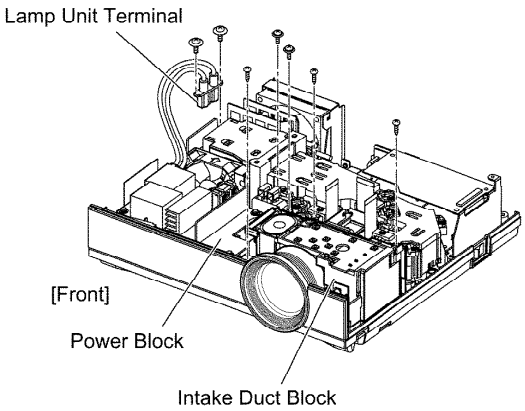

## 6.8. Removal of B/Q-Module

1. **Remove the upper case and A-P.C.Board block according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".**
2. **Unscrew the 2 screws and remove the lamp unit terminal.**
3. **Unscrew the 3 screws.**
4. **While pressing to close the cap of the resinous stand, remove the B/Q-Module.**

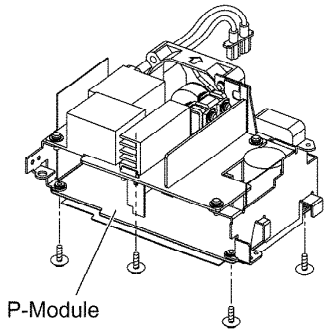



## 6.9. Removal of P-Module

1. **Remove the upper case and A-P.C.Board block according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".**
2. **Unscrew the 3 screws and remove the intake duct block.**
3. **Unscrew the 2 screws and remove the lamp unit terminal.**
4. **Unscrew the 2 screws and remove the power block (P-, B/Q-Modules block).**



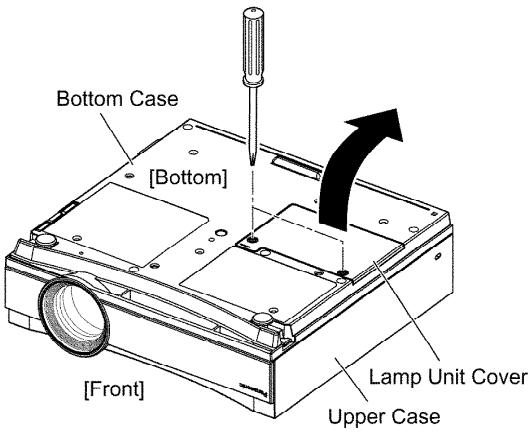

**5. Unscrew the 4 screws and remove the P-Module.**



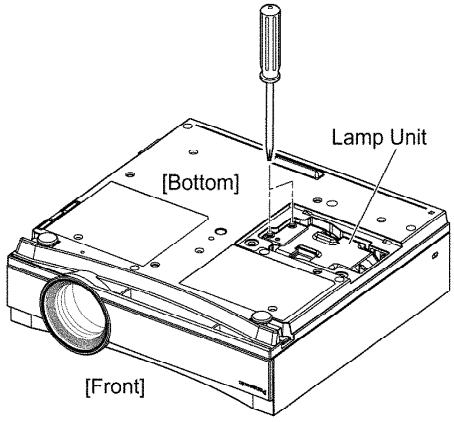

## 6.10. Removal of Lamp Unit

**1. Turn the projector upside down.**

**2. Loosen the 2 screws until they idle, lift the lamp unit cover to remove.**

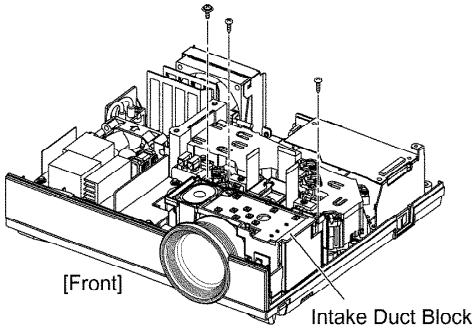



**3. Unscrew the 2 screws fixing the lamp unit and remove the lamp unit.**

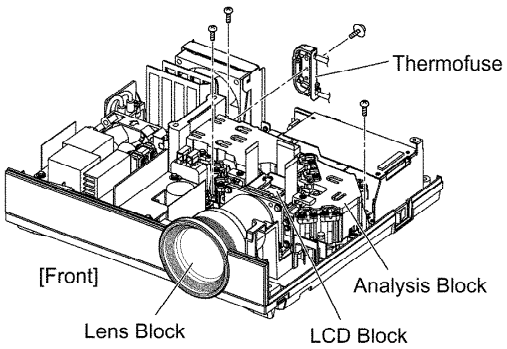



## 6.11. Removal of Analysis Block, LCD Block and Lens Block

1. **Remove the lamp unit according to the section 6.10. "Removal of Lamp Unit".**
2. **Remove the upper case and A-P.C.Board block according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".**
3. **Unscrew the 3 screws and remove the intake duct block.**

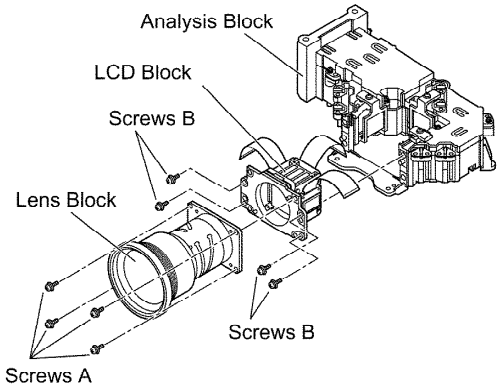



4. **Unscrew the 1 screw and separate the thermofuse from the analysis block.**
5. **Unscrew the 3 screws and remove the analysis/LCD/lens block.**




6. **Unscrew the 4 screws A to separate the lens block and the LCD**

**block, unscrew the 4 screws B to separate the LCD block and the analysis block.**



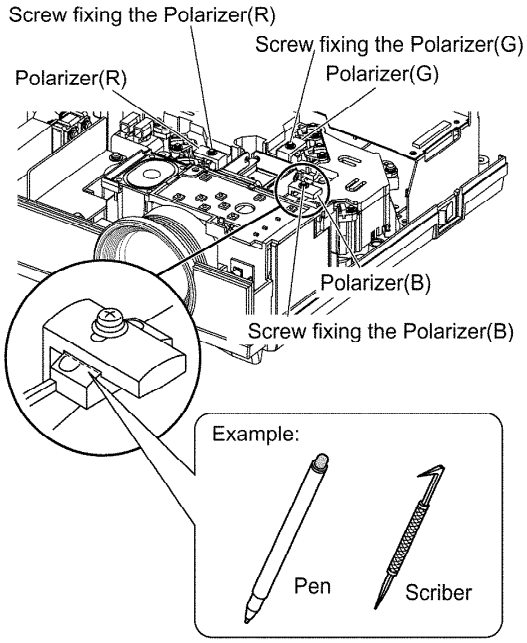

## 6.12. Replacement of Polarizer

1. **Remove the upper case and A-P.C.Board block according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".**
2. **Mark positions of the polarizer (R/G/B).**

**Note:**

**- Mark accurately as possible because the marks will be used for resetting the polarizer position.**

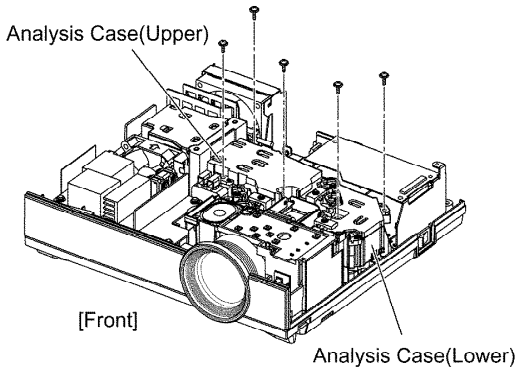
3. **Unscrew each screw fixing the polarizer and remove the polarizer.**
4. **Attach a new polarizer and align it with the mark.**
5. **Tighten the screw fixing the polarizer with care not to move its position.**




## 6.13. Replacement of PBS Array (Analysis Block)

**1. Remove the upper case and A-P.C.Board block according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".**

**2. Unscrew the 5 screws.**




**3. Disconnect 2 joint hooks of the analysis cases and remove the analysis case (upper).**

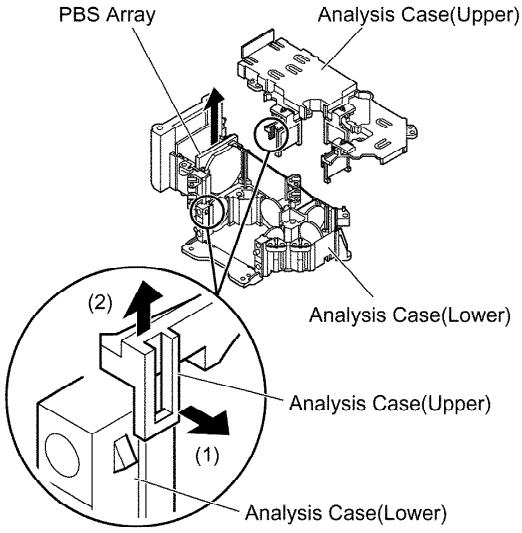
**Notes:**

**- While pulling the hook of the analysis case (upper) in the direction of arrow (1), unhook it from the analysis case (lower).**

**- Polarizers (R/G/B) are attached on the analysis case (upper). Handle with care not to apply external force to the polarizers.**

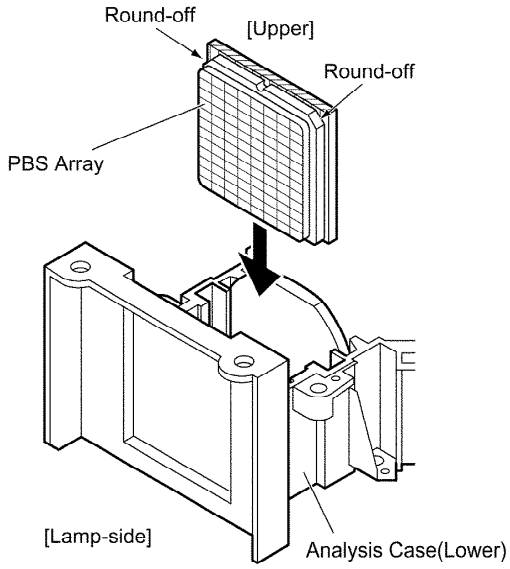
**- Do not touch optical components (lens, mirror, etc.) of the analysis block. If dirt or aberration has brought into existence, efficiency of**

**the projector may deteriorate.**




[Above figure is shown only the analysis block for explanation.]

**4. Take out upward the PBS array with the edges, then replace it.**

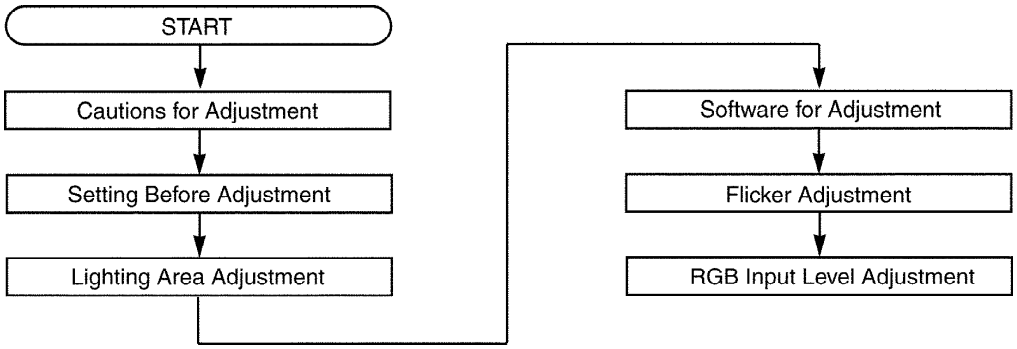



**Note:**

**- When attaching a new PBS array, be careful not to mistake the direction.**

# 7. Measurement and Adjustments

## 7.1. Adjustment Procedure Flowchart

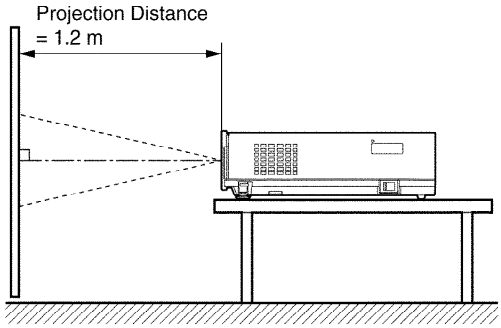



## 7.2. Cautions for Adjustment

- Never turn off the MAIN POWER switch until every fan completely stops.
- To maintain and ensure safety, always use the designated components for replacement parts.
- If removing any clamps, lead wires or connectors, always place them back in their proper locations.
- Be careful not to damage the lead wires or components when using a soldering iron or similar tool.

## 7.3. Setting Before Adjustment

- Set up the projector to obtain the projection distance below.
- Turn the zoom ring of the projector to obtain the largest size of the picture.




## 7.4. Lighting Area Adjustment

### 7.4.1. Tools to be used

**Service Kit (Part No. TZSH07006): This kit is composed of 3 extension flexible cables and 1 connector extension cable.**

**Note:**

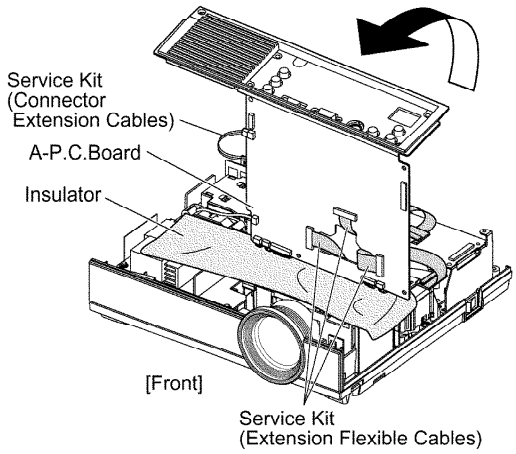
- Consult your dealer or Authorized Service Center for the service kit.

### 7.4.2. Preparation

1. Remove the upper case and unscrew the 6 screws according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".
2. Connect the service kit (extension cables).

    - Each flexible cable of LCD Panels (R/G/B) - Connectors (A1/A2 /A3) on A-P.C.Board
    - Connector of Exhaust Fan - Connector (A17) on A-P.C.Board

3. Disconnect the flexible cable from SD-P.C.Board to connector A20.
4. Covering with an insulator (cloth or the like) to prevent a short circuit, set the A-P.C.Board on the main unit.




**Note:**

- Handle with care not to apply external force to connecting parts which connect the main unit and A-P.C.Board.

## 7.4.3. Adjustment Procedure

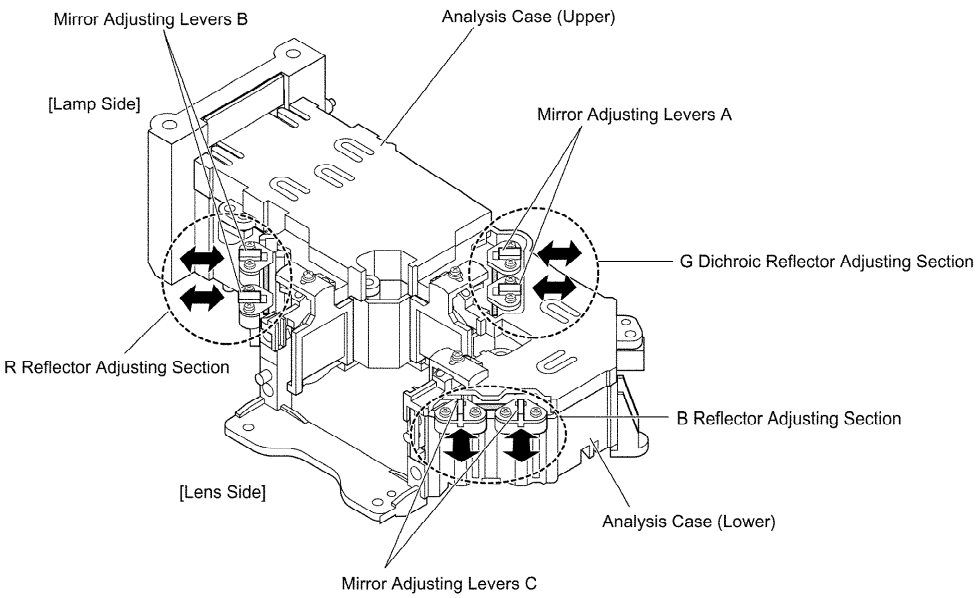
### 7.4.3.1. Outline

**When the lighting area is off from the adjustment and color unevenness appears, adjust the lighting area into correct position.**

| Symptom | Measure |
|---|---|
| Magenta unevenness | G Dichroic Reflector Adjustment |
| Cyan unevenness | R Reflector Adjustment |
| Yellow unevenness | B Reflector Adjustment |

**- Shifting two mirror adjusting levers in the same direction, adjust color unevenness on the screen upper/lower sides.**
**- Shifting two mirror adjusting levers in opposite directions, adjust color unevenness on the screen right/left sides.**

[Analysis Block]




[Above figure is shown only the analysis block for explanation.]

#### 7.4.3.2. G Dichroic Reflector Adjustment

1. **Turn on the power and display 100 % white pattern on the screen.**
2. **Loosen each screw fixing the 2 mirror adjusting levers A just until the lever can be shifted.**
3. **Adjust the mirror adjusting levers A positions to minimize color unevenness on the screen by shifting the levers in arrow directions.**
4. **Tighten each screw.**

#### 7.4.3.3. R Reflector Adjustment

1. **Turn on the power and display 100 % white pattern on the screen.**
2. **Loosen each screw fixing the 2 mirror adjusting levers B just until the lever can be shifted.**
3. **Adjust the mirror adjusting levers B positions to minimize color unevenness on the screen by shifting the levers in arrow directions.**

**4. Tighten each screw.**

#### 7.4.3.4. B Reflector Adjustment

**1. Turn on the power and display 100 % white pattern on the screen.**

**2. Loosen each screw fixing the 2 mirror adjusting levers C just until the lever can be shifted.**

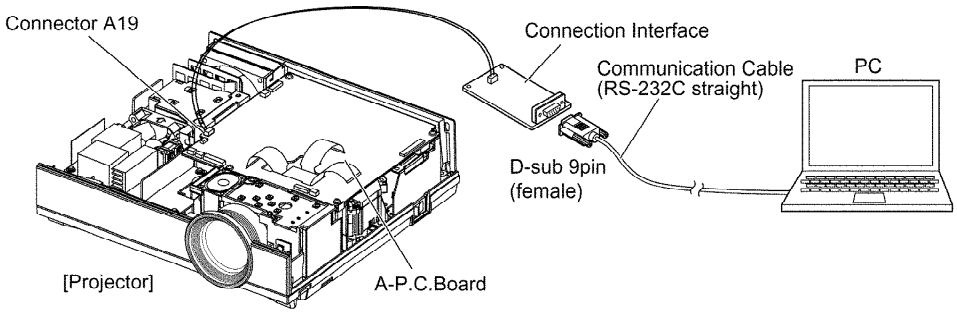
**3. Adjust the mirror adjusting levers C positions to minimize color unevenness on the screen by shifting the levers in arrow directions.**

**4. Tighten each screw.**

## 7.5. Software for Adjustment

### 7.5.1. Outline

**- This projector needs computer-aided adjustments.**
**- After the software adjustments, this projector must be turned off and on again to memorize the settings.**
**- Connect the connection interface and communication cable between the projector and a PC as shown below.**
**- Updating the software will change the version number.**




### 7.5.2. Operating Procedure

**1. Run the software program by the keyboard entry.**

**Note:**

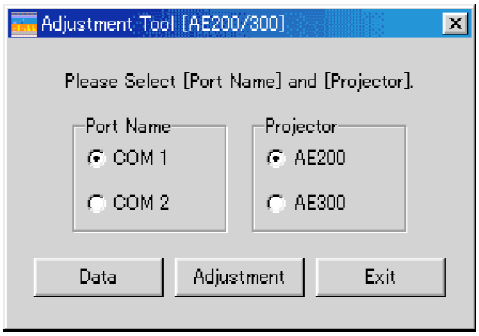
**- Use the software program as below.**
**Adjustment Tool [AE200/300]**

**2. The first menu is [Port Name] and [Projector] selection menu.**

**3. Adjust the projector by selecting the necessary item from the**

**menu in each stage.**

### 7.5.3. Port Name and Projector Selection Menu




**Select the applying item with the radio button and click [Data] or [Adjustment] button.**

#### 7.5.3.1. Explanation of Buttons

**COM 1:**
**Sets the port name of PC which connects with the projector is in COM1.**

**COM 2:**
**Sets the port name of PC which connects with the projector is in COM2.**

**AE200:**
**Select when the pertinent model name is PT-AE200*.**

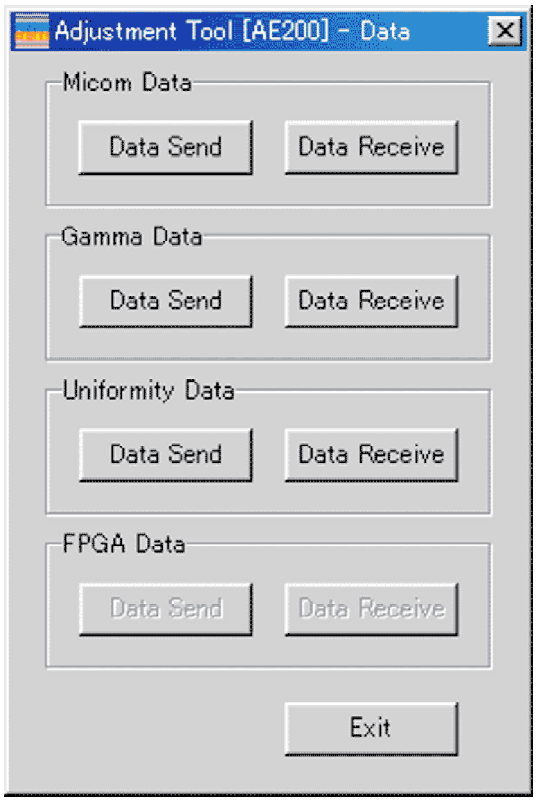
**AE300:**
**Select when the pertinent model name is PT-AE300*.**

**Data:**
**Displays the data send/receive menu.**

**Adjustment:**
**Displays the adjustment menu.**

**Exit:**
**Exits this application.**

### 7.5.4. Data Send/Receive Menu




#### 7.5.4.1. Explanation of Buttons

**Micom Data Send:**
**Reads the microcomputer data from the file and sends it to the projector.**

**Micom Data Receive:**
**Receives the microcomputer data from the projector and writes it in the file.**

**Gamma Data Send:**
**Reads the gamma data from the file and sends it to the projector.**

**Gamma Data Receive:**
**Receives the gamma data from the projector and writes it in the file.**

**Uniformity Data Send:**
**Reads the color unevenness correction data from the file and sends it to the projector.**

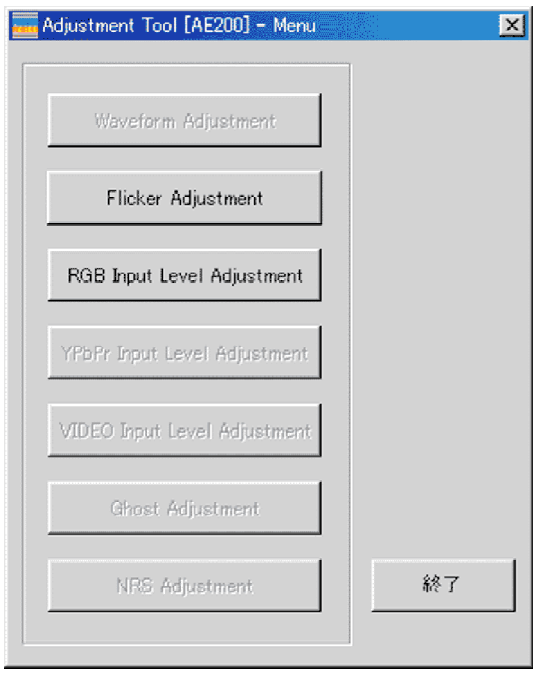
**Uniformity Data Receive:**
**Receives the color unevenness correction data from the projector and writes it in the file.**

**Exit:**
**Exits this application.**

#### 7.5.4.2. Receiving and sending of the data

**Click a target button and specify a file name.**

### 7.5.5. Adjustment Menu




#### 7.5.5.1. Explanation of Buttons

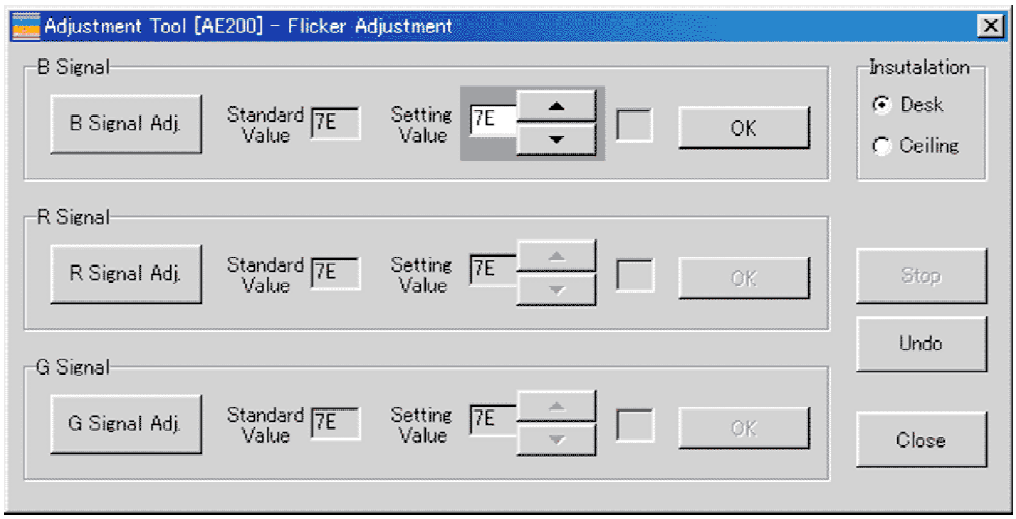
**Flicker Adjustment:**
**Displays the flicker adjustment menu.**

**RGB Input Level Adjustment:**
**Displays the RGB input level adjustment menu.**

**Exit:**
**Exits this application.**

## 7.6. Flicker Adjustment

### 7.6.1. Adjustment Menu




## 7.6.2. Explanation of Buttons

**Desk:**
**Sets the installation mode to the desk setting and receive the current data.**

**Ceiling:**
**Sets the installation mode to the ceiling setting and receive the current data.**

**B Signal Adj.:**
**Sets the test signal mode to the B-signal and allows the "▲", "▼" and "OK" buttons of the B-signal to becomes active.**

**R Signal Adj.:**
**Sets the test signal mode to the R-signal and allows the "▲", "▼" and "OK" buttons of the R-signal to becomes active.**

**G Signal Adj.:**
**Sets the test signal mode to the G-signal and allows the "▲", "▼" and "OK" buttons of the G-signal to becomes active.**

**▲ or ▼**
**Changes the setting value and transmits its data. (The 8 and 2 keys on the keyboard have the same functions.) If releasing the mouse or key after pressing it continuously, the data is transmitted once. The variable setting value is enclosed ina box and using the TAB or SPACE key allows the move of the box.**

**OK:**

**Determines the setting value and stores its data in the EEPROM. (The ENTER key on the keyboard has the same function.) The item having two or more kinds of setting values is processed two or more items. Clicking this button or pressing ENTER keychanges the color of the text "OK" to cyan (light blue). If changing the setting value using the "▲" or "▼" button or the 8or 2 key, its color returns to black.**

**Stop:**
**Discontinues the communication. (This button is usually set for its inactive mode.)**

**Undo:**
**Returns the setting value to its original state and transmits its data. The color of the text "OK" returns to black.**

**Close:**
**Closes this menu.**

### 7.6.3. Equipment to be used

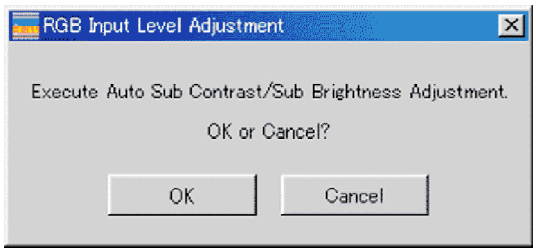
**PC, Software for Adjustment**

### 7.6.4. Adjustment Procedure

1. **Display the flicker adjustment menu.**
2. **Set the installation mode to the desk setting.**
3. **Click "B Signal Adj," and the blue flicker adjustment pattern will be displayed.**
4. **Minimize the flicker while observing the projected pattern.**
5. **Click "R Signal Adj," and the red flicker adjustment pattern will be displayed.**
6. **Minimize the flicker while observing the projected pattern.**
7. **Click "G Signal Adj," and the green flicker adjustment pattern will be displayed.**
8. **Minimize the flicker while observing the projected pattern.**
9. **Change the installation mode to the ceiling setting and follow steps 3 to 8 inclusive.**

## 7.7. RGB Input Level Adjustment

### 7.7.1. Adjustment Menu




### 7.7.2. Explanation of Buttons

**OK:**
**Executes automatic sub contrast and sub brightness adjustments, then closes this dialog.**

**Cancel:**
**Cancels this menu.**

### 7.7.3. Equipment to be used

**PC, RGB Signal Generator, Software for Adjustment**

### 7.7.4. Adjustment Procedure

**1. Display the RGB input level adjustment menu.**

**2. Input a window pattern signal to PC IN (RGB) connector.**

**Note:**

**- Use approx. 15 % window pattern as follows.**
**Black background (screen width) : White window width = 2 : 1**
**Black background (screen height) : White window height = 3 : 1**

**- Use the window pattern of VGA60.**

**3. Click the OK button.**

# 8. Troubleshooting

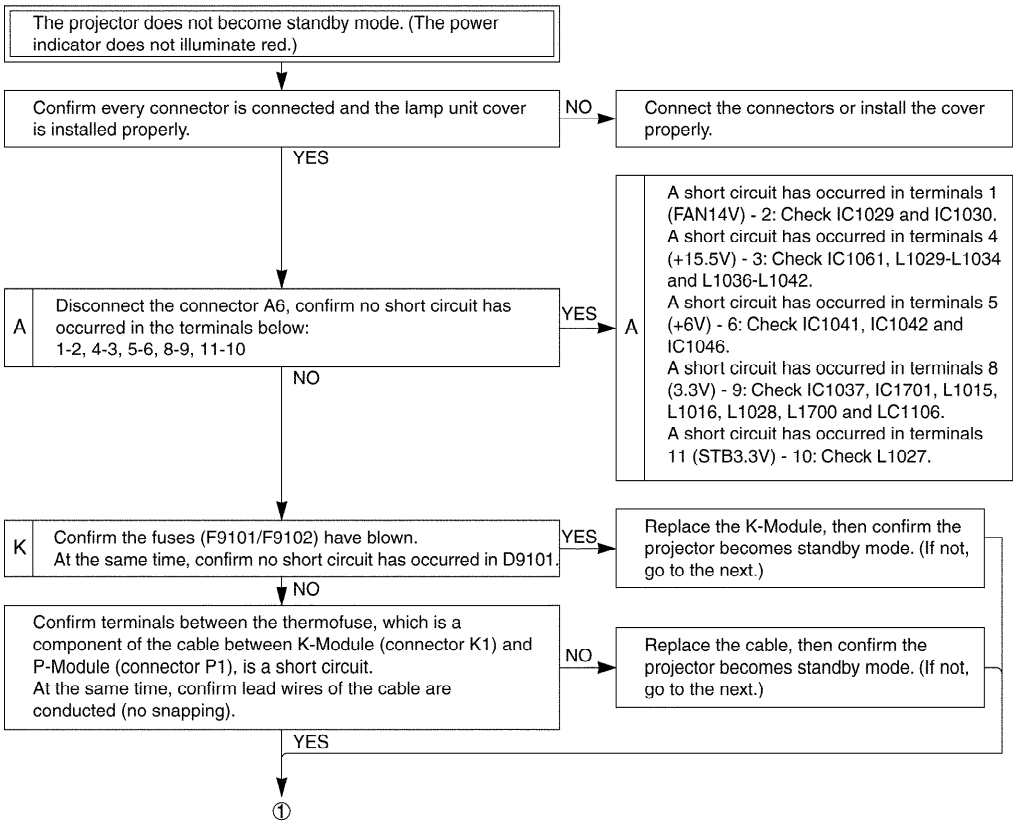
• The letters in the left of the inspection items indicate the P.C.Boards or Modules related to their respective descriptions.

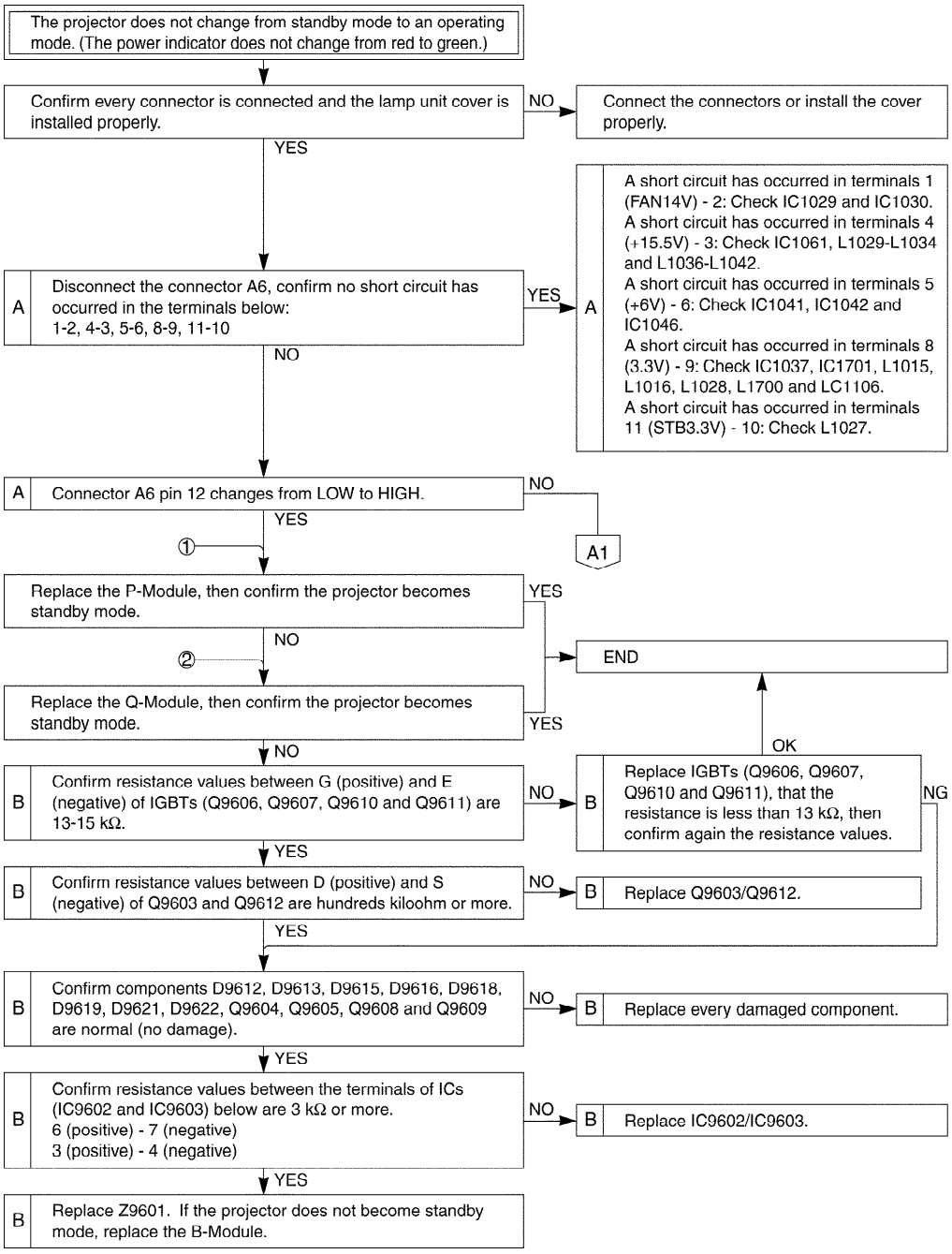
Note: A

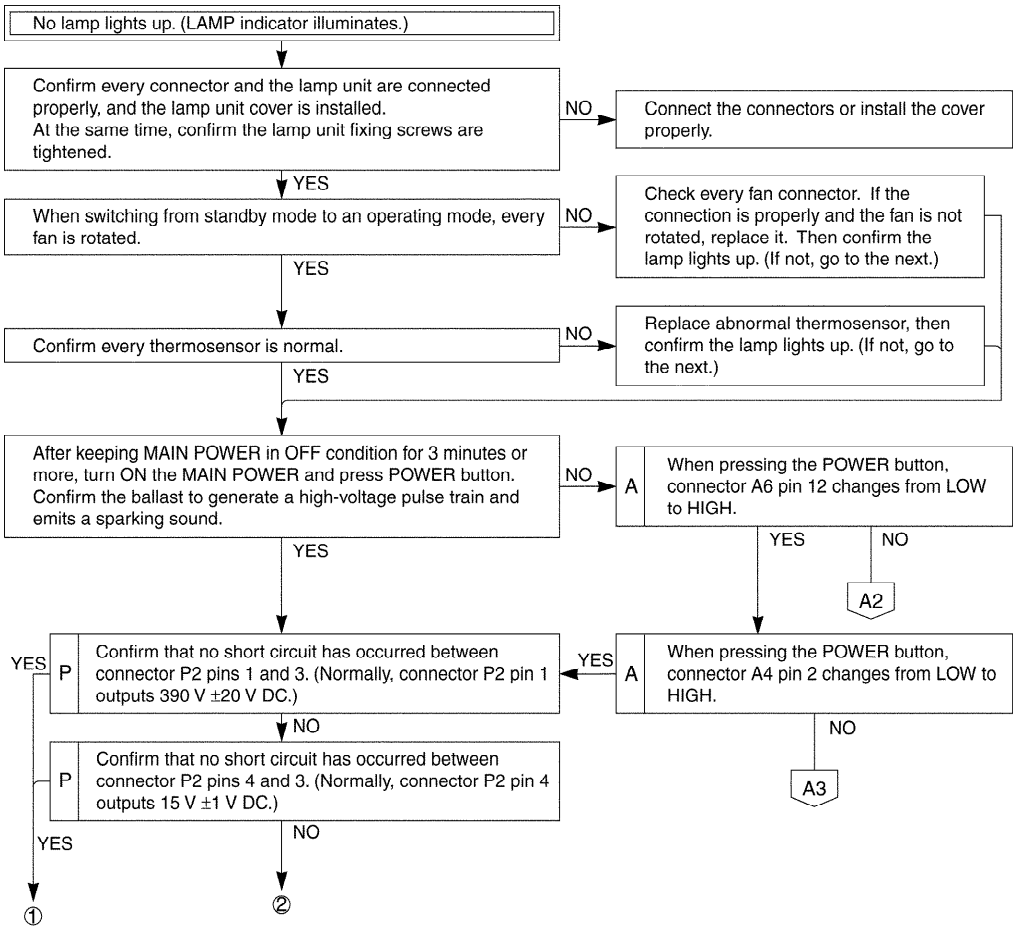
The letter of the alphabet indicates the P.C.Board or Module name.

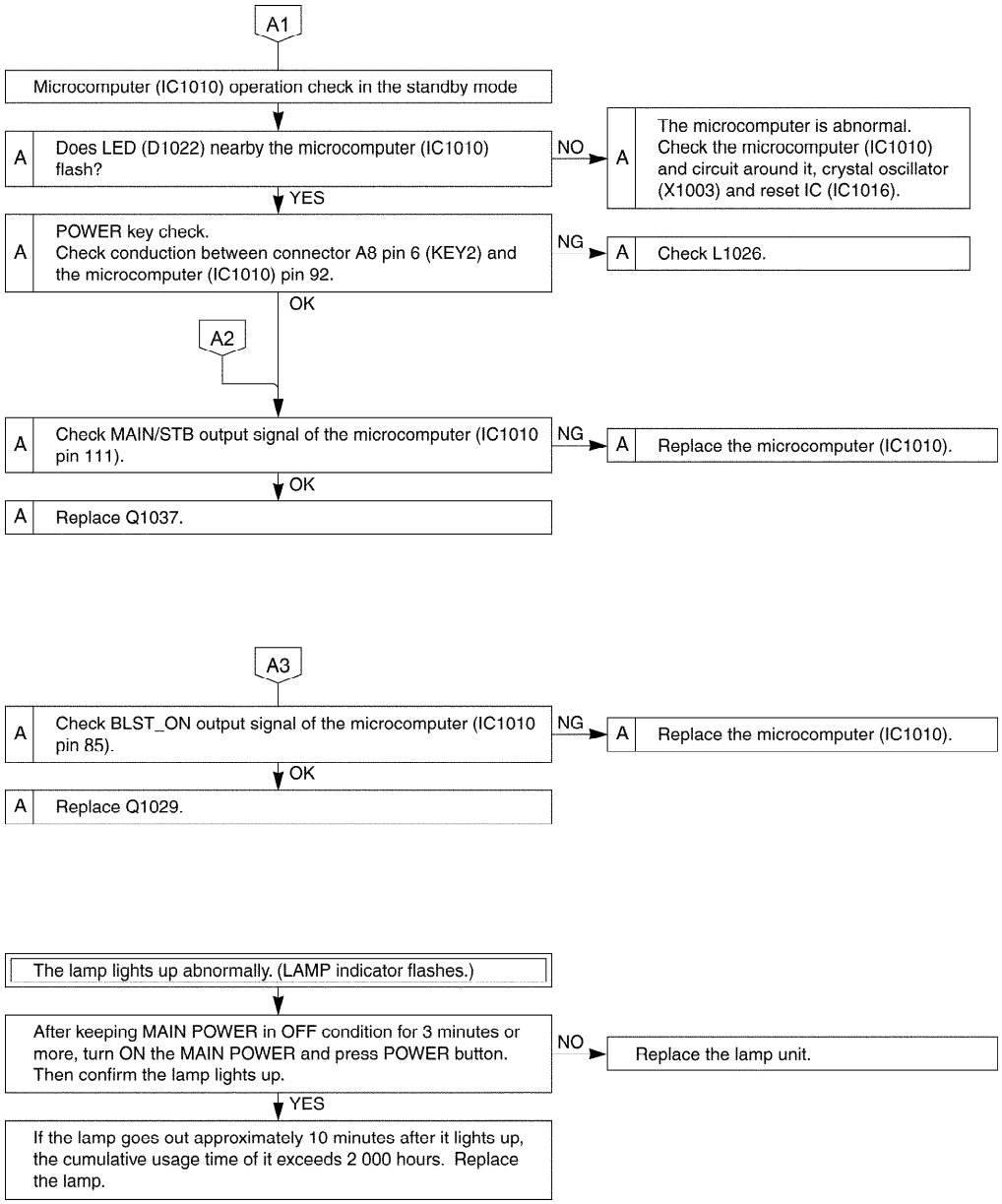
(Example) A: A-P.C.Board, K: K-Module

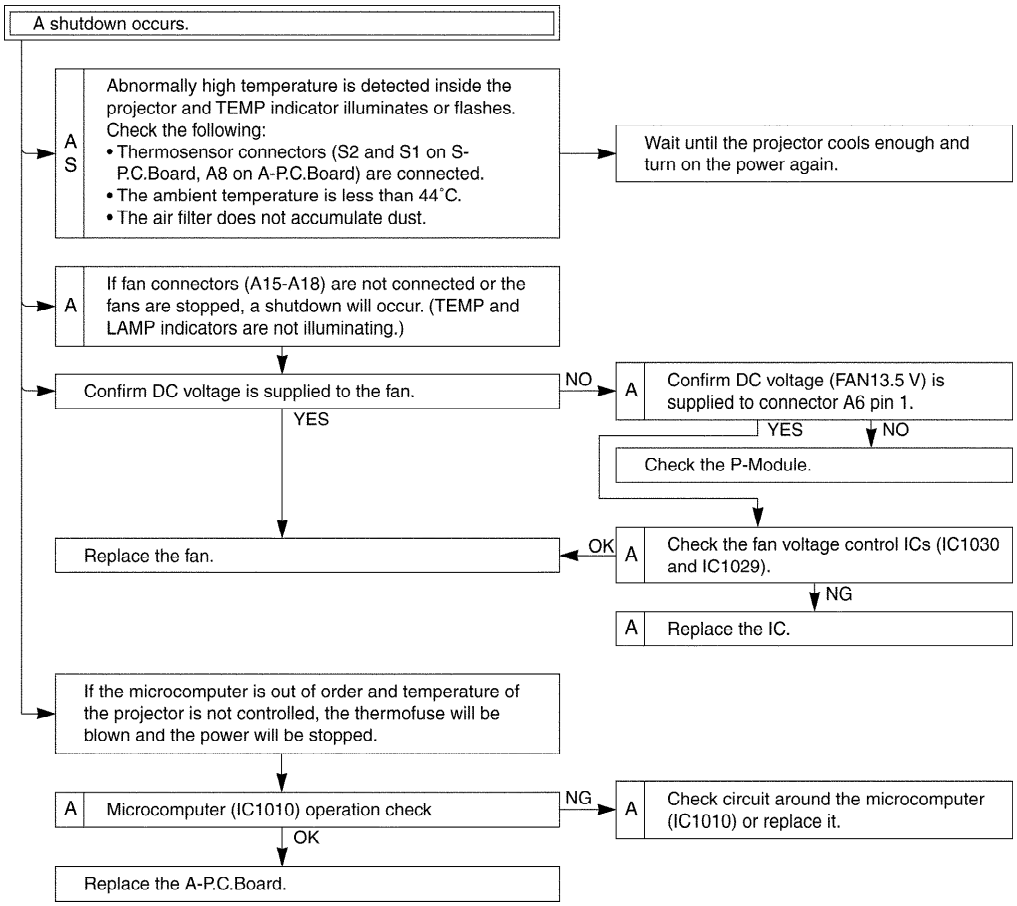
• If replacing A-P.C.Board (assembly), read the ROM data from the old P.C.Board and write it in the new one according to the section 7.5. "Software for Adjustment". At this time, if the readout from the old P.C.Board does not succeed, remove IC1011 and IC1017 from the old P.C.Board and install them on the new one.
• If replacing A-P.C.Board (assembly), adjust RGB Input Level according to the chapter 7.7. "RGB Input Level Adjustment".

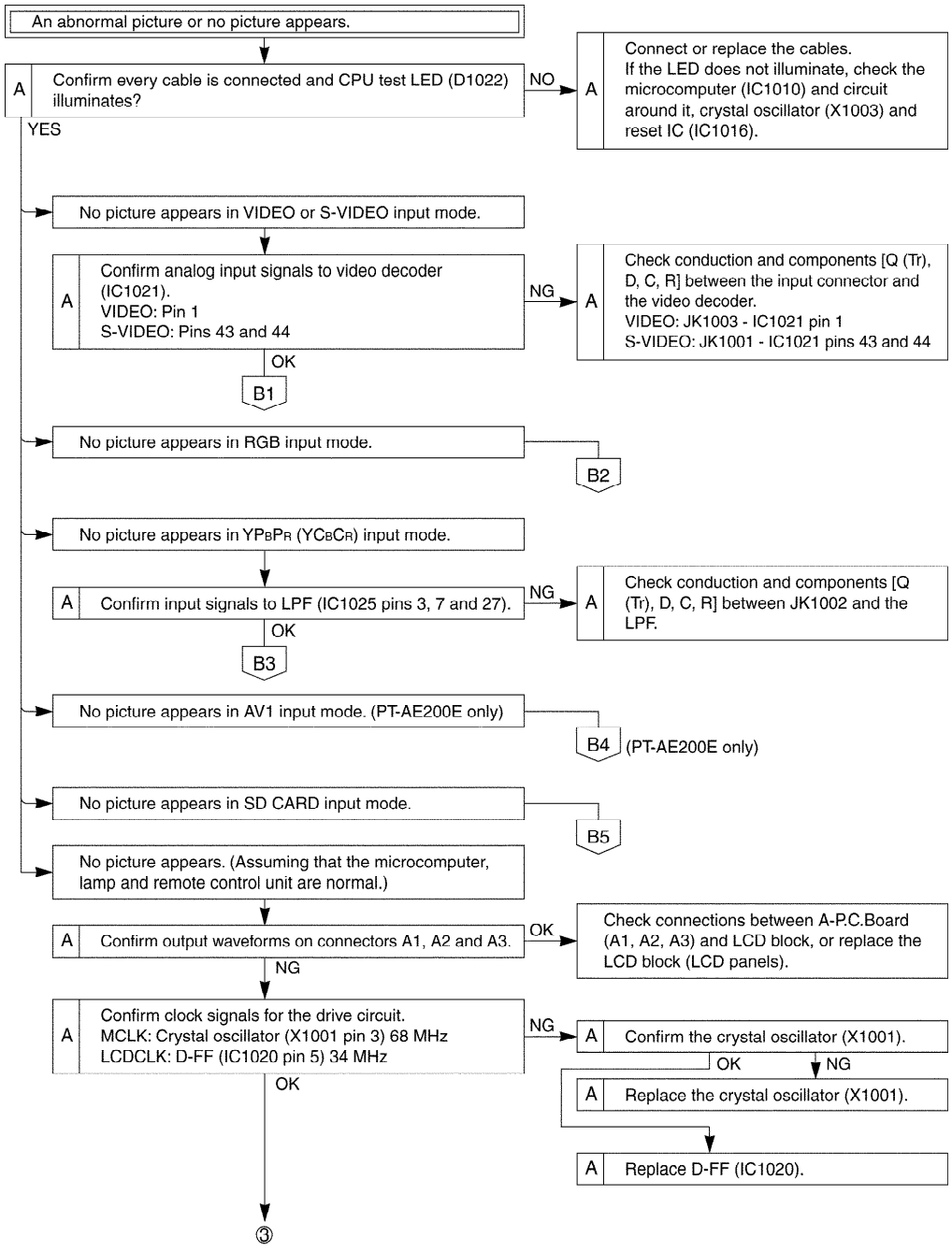

The projector does not become standby mode. (The power indicator does not illuminate red.)
Confirm every connector is connected and the lamp unit cover is installed properly.
NO
Connect the connectors or install the cover properly.
YES
A
Disconnect the connector A6, confirm no short circuit has occurred in the terminals below:
1-2, 4-3, 5-6, 8-9, 11-10
YES
A
A short circuit has occurred in terminals 1 (FAN14V) - 2: Check IC1029 and IC1030.
A short circuit has occurred in terminals 4 (+15.5V) - 3: Check IC1061, L1029-L1034 and L1036-L1042.
A short circuit has occurred in terminals 5 (+6V) - 6: Check IC1041, IC1042 and IC1046.
A short circuit has occurred in terminals 8 (3.3V) - 9: Check IC1037, IC1701, L1015, L1016, L1028, L1700 and LC1106.
A short circuit has occurred in terminals 11 (STB3.3V) - 10: Check L1027.
NO
K
Confirm the fuses (F9101/F9102) have blown.
At the same time, confirm no short circuit has occurred in D9101.
YES
Replace the K-Module, then confirm the projector becomes standby mode. (If not, go to the next.)
NO
Confirm terminals between the thermofuse, which is a component of the cable between K-Module (connector K1) and P-Module (connector P1), is a short circuit.
At the same time, confirm lead wires of the cable are conducted (no snapping).
NO
Replace the cable, then confirm the projector becomes standby mode. (If not, go to the next.)
YES
①

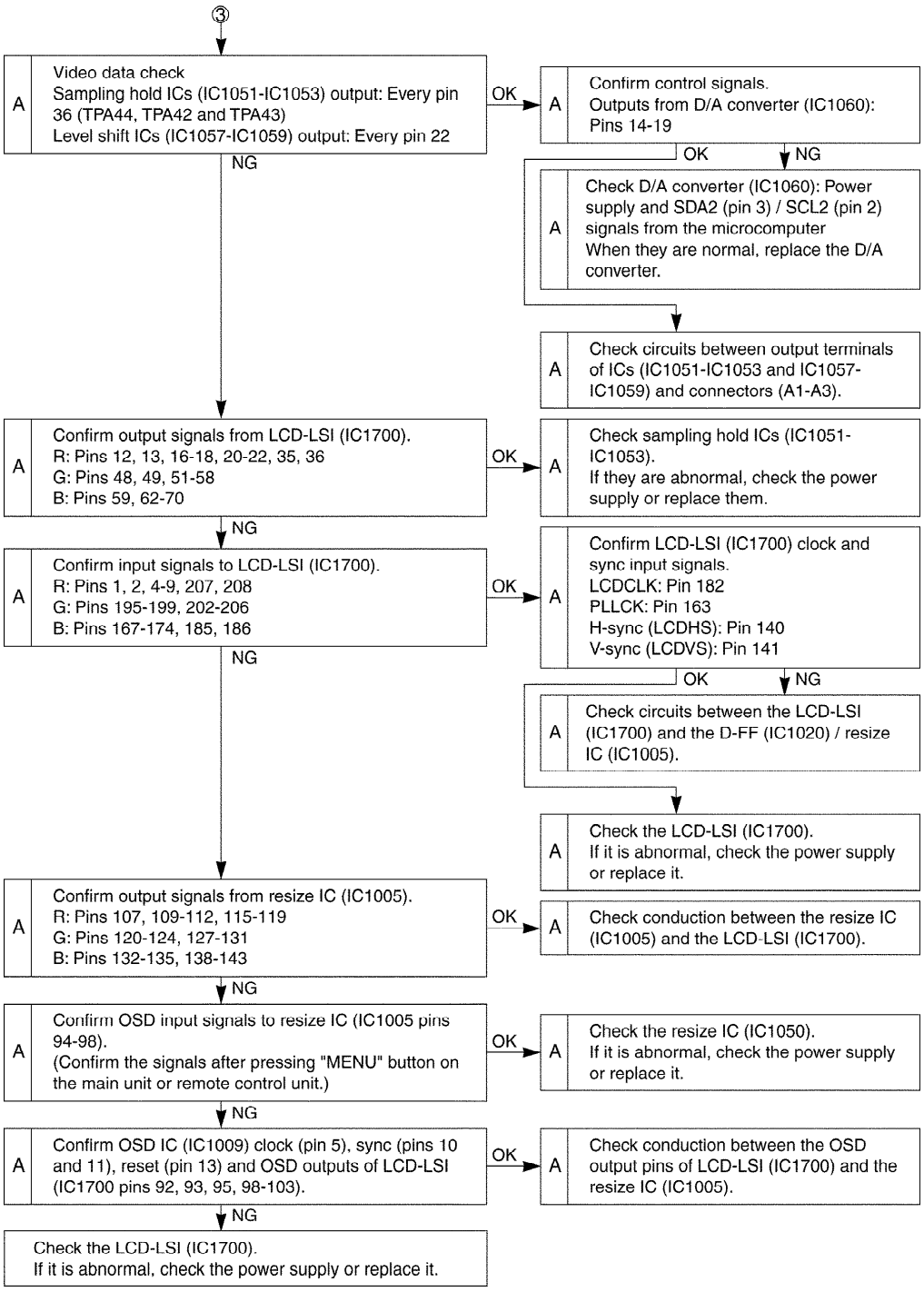

The projector does not change from standby mode to an operating mode. (The power indicator does not change from red to green.)
Confirm every connector is connected and the lamp unit cover is installed properly.
NO
Connect the connectors or install the cover properly.
YES
A
Disconnect the connector A6, confirm no short circuit has occurred in the terminals below:
1-2, 4-3, 5-6, 8-9, 11-10
YES
A
A short circuit has occurred in terminals 1 (FAN14V) - 2: Check IC1029 and IC1030.
A short circuit has occurred in terminals 4 (+15.5V) - 3: Check IC1061, L1029-L1034 and L1036-L1042.
A short circuit has occurred in terminals 5 (+6V) - 6: Check IC1041, IC1042 and IC1046.
A short circuit has occurred in terminals 8 (3.3V) - 9: Check IC1037, IC1701, L1015, L1016, L1028, L1700 and LC1106.
A short circuit has occurred in terminals 11 (STB3.3V) - 10: Check L1027.
NO
A
Connector A6 pin 12 changes from LOW to HIGH.
NO
YES
A1
①
Replace the P-Module, then confirm the projector becomes standby mode.
YES
NO
END
②
Replace the Q-Module, then confirm the projector becomes standby mode.
YES
OK
NO
B
Confirm resistance values between G (positive) and E (negative) of IGBTs (Q9606, Q9607, Q9610 and Q9611) are 13-15 kΩ.
NO
B
Replace IGBTs (Q9606, Q9607, Q9610 and Q9611), that the resistance is less than 13 kΩ, then confirm again the resistance values.
NG
YES
B
Confirm resistance values between D (positive) and S (negative) of Q9603 and Q9612 are hundreds kiloohm or more.
NO
B
Replace Q9603/Q9612.
YES
B
Confirm components D9612, D9613, D9615, D9616, D9618, D9619, D9621, D9622, Q9604, Q9605, Q9608 and Q9609 are normal (no damage).
NO
B
Replace every damaged component.
YES
B
Confirm resistance values between the terminals of ICs (IC9602 and IC9603) below are 3 kΩ or more.
6 (positive) - 7 (negative)
3 (positive) - 4 (negative)
NO
B
Replace IC9602/IC9603.
YES
B
Replace Z9601. If the projector does not become standby mode, replace the B-Module.

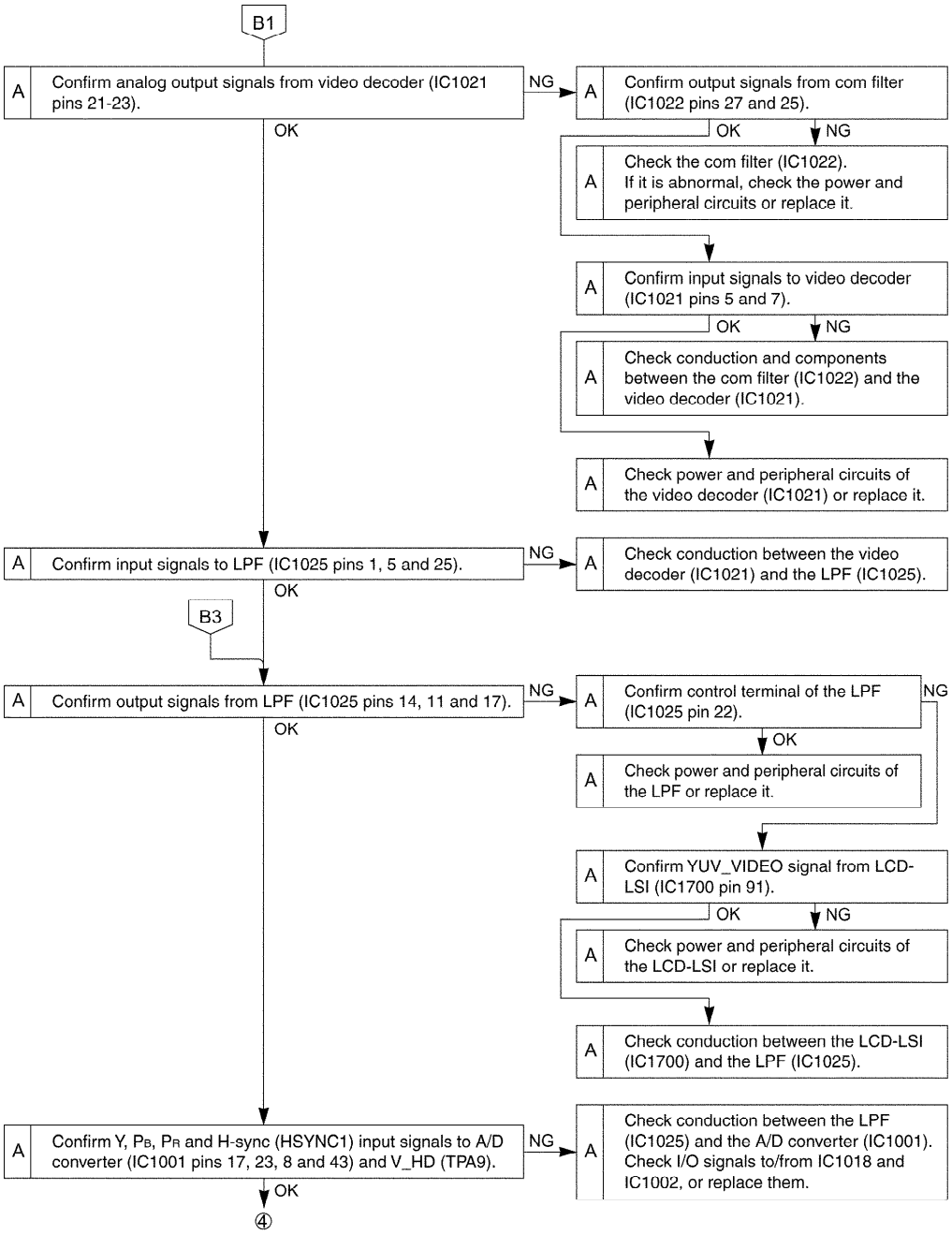

No lamp lights up. (LAMP indicator illuminates.)
Confirm every connector and the lamp unit are connected properly, and the lamp unit cover is installed.
At the same time, confirm the lamp unit fixing screws are tightened.
NO
Connect the connectors or install the cover properly.
YES
When switching from standby mode to an operating mode, every fan is rotated.
NO
Check every fan connector. If the connection is properly and the fan is not rotated, replace it. Then confirm the lamp lights up. (If not, go to the next.)
YES
Confirm every thermosensor is normal.
NO
Replace abnormal thermosensor, then confirm the lamp lights up. (If not, go to the next.)
YES
After keeping MAIN POWER in OFF condition for 3 minutes or more, turn ON the MAIN POWER and press POWER button. Confirm the ballast to generate a high-voltage pulse train and emits a sparking sound.
NO
A
When pressing the POWER button, connector A6 pin 12 changes from LOW to HIGH.
YES
NO
A2
YES
Confirm that no short circuit has occurred between connector P2 pins 1 and 3. (Normally, connector P2 pin 1 outputs 390 V ±20 V DC.)
P
YES
A
When pressing the POWER button, connector A4 pin 2 changes from LOW to HIGH.
NO
A3
NO
Confirm that no short circuit has occurred between connector P2 pins 4 and 3. (Normally, connector P2 pin 4 outputs 15 V ±1 V DC.)
P
YES
NO
①
②

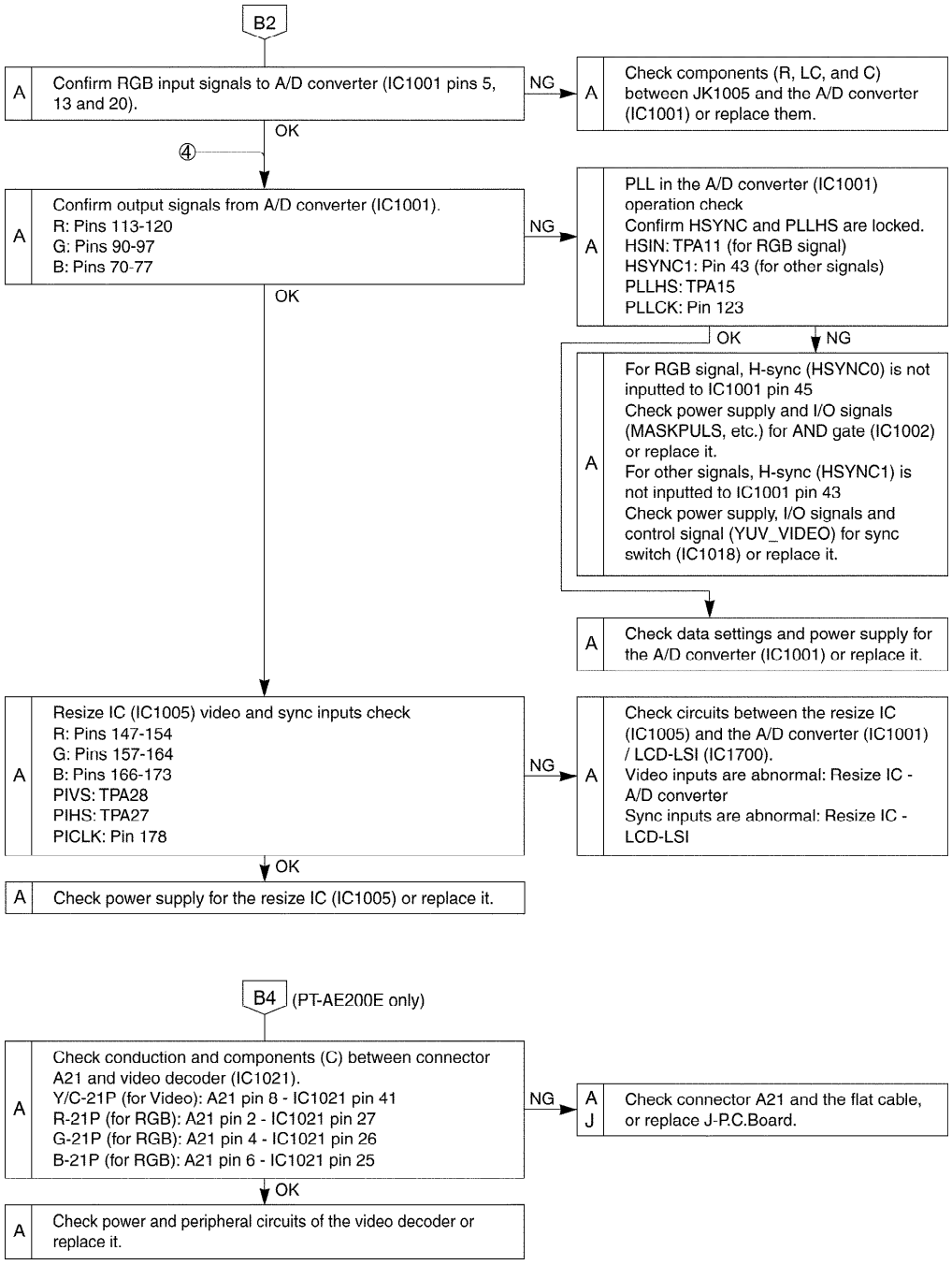

A1
Microcomputer (IC1010) operation check in the standby mode
A
Does LED (D1022) nearby the microcomputer (IC1010) flash?
NO
A
The microcomputer is abnormal. Check the microcomputer (IC1010) and circuit around it, crystal oscillator (X1003) and reset IC (IC1016).
YES
A
POWER key check. Check conduction between connector A8 pin 6 (KEY2) and the microcomputer (IC1010) pin 92.
NG
A
Check L1026.
OK
A2
A
Check MAIN/STB output signal of the microcomputer (IC1010 pin 111).
NG
A
Replace the microcomputer (IC1010).
OK
A
Replace Q1037.
A3
A
Check BLST_ON output signal of the microcomputer (IC1010 pin 85).
NG
A
Replace the microcomputer (IC1010).
OK
A
Replace Q1029.
The lamp lights up abnormally. (LAMP indicator flashes.)
After keeping MAIN POWER in OFF condition for 3 minutes or more, turn ON the MAIN POWER and press POWER button. Then confirm the lamp lights up.
NO
Replace the lamp unit.
YES
If the lamp goes out approximately 10 minutes after it lights up, the cumulative usage time of it exceeds 2 000 hours. Replace the lamp.

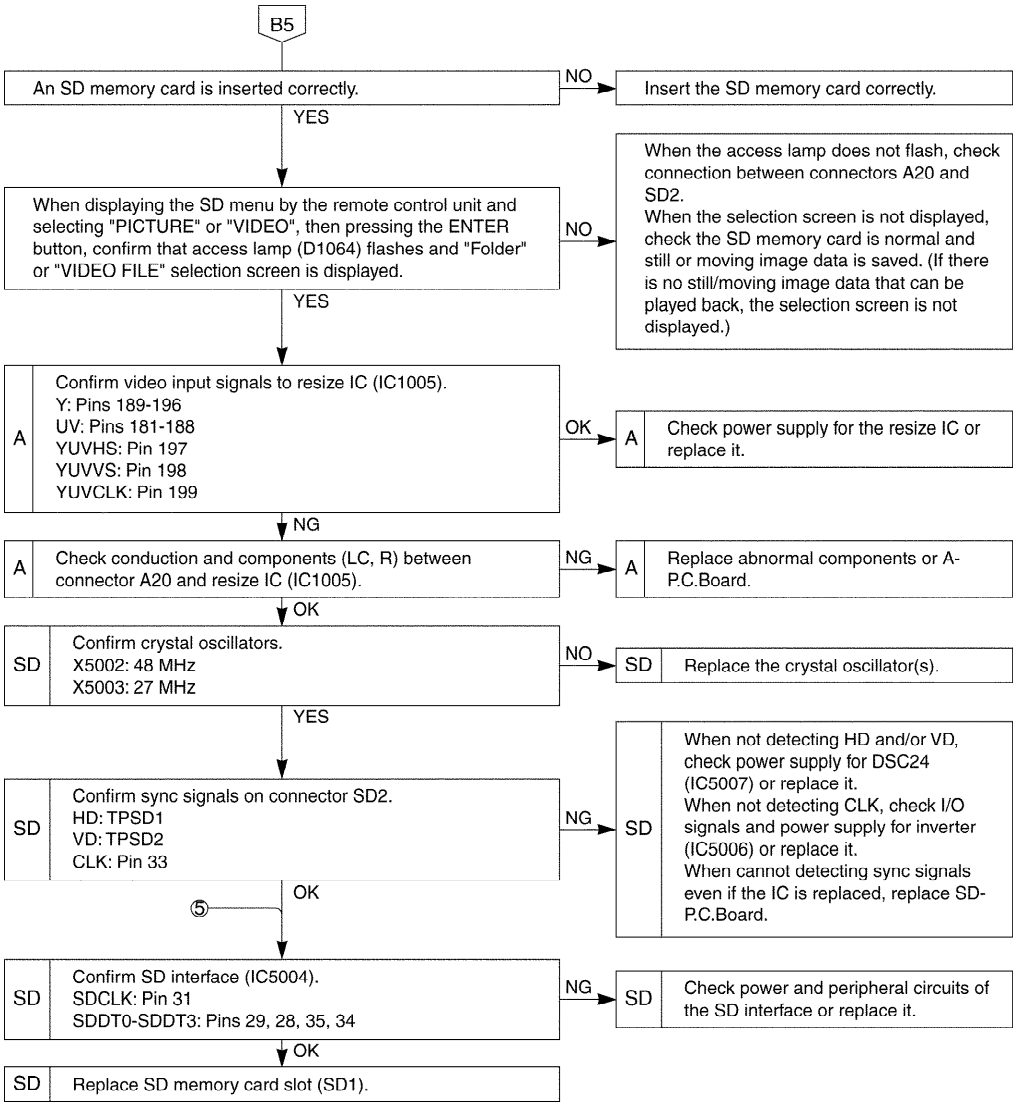

A shutdown occurs.
A S
Abnormally high temperature is detected inside the projector and TEMP indicator illuminates or flashes. Check the following:
• Thermosensor connectors (S2 and S1 on S-P.C.Board, A8 on A-P.C.Board) are connected.
• The ambient temperature is less than 44˚C.
• The air filter does not accumulate dust.
Wait until the projector cools enough and turn on the power again.
A
If fan connectors (A15-A18) are not connected or the fans are stopped, a shutdown will occur. (TEMP and LAMP indicators are not illuminating.)
Confirm DC voltage is supplied to the fan.
NO
A
Confirm DC voltage (FAN13.5 V) is supplied to connector A6 pin 1.
YES
NO
Check the P-Module.
YES
Replace the fan.
OK
A
Check the fan voltage control ICs (IC1030 and IC1029).
NG
A
Replace the IC.
If the microcomputer is out of order and temperature of the projector is not controlled, the thermofuse will be blown and the power will be stopped.
A
Microcomputer (IC1010) operation check
NG
A
Check circuit around the microcomputer (IC1010) or replace it.
OK
Replace the A-P.C.Board.

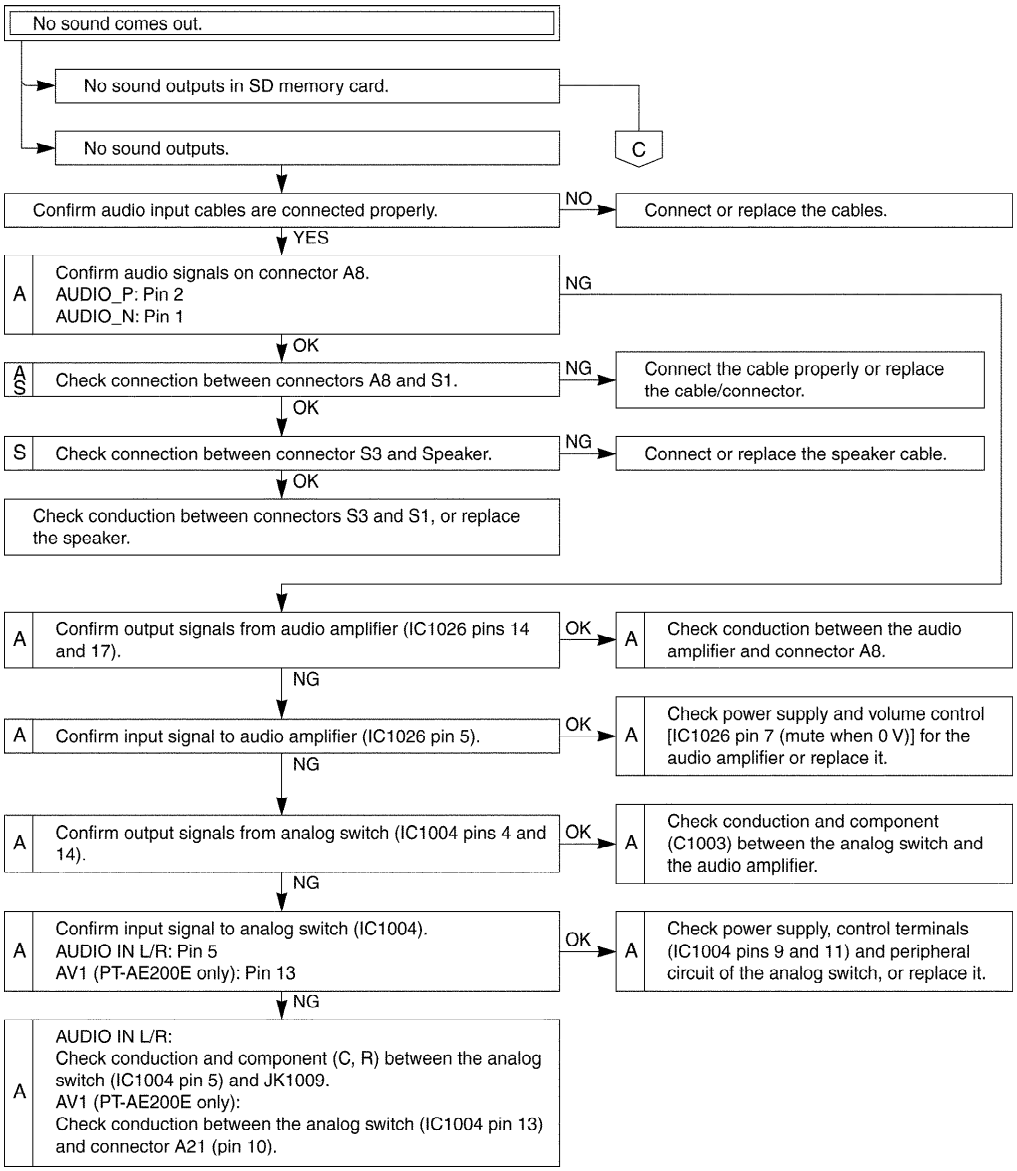

An abnormal picture or no picture appears.
A
Confirm every cable is connected and CPU test LED (D1022) illuminates?
NO
A
Connect or replace the cables.
If the LED does not illuminate, check the microcomputer (IC1010) and circuit around it, crystal oscillator (X1003) and reset IC (IC1016).
YES
No picture appears in VIDEO or S-VIDEO input mode.
A
Confirm analog input signals to video decoder (IC1021).
VIDEO: Pin 1
S-VIDEO: Pins 43 and 44
NG
A
Check conduction and components [Q (Tr), D, C, R] between the input connector and the video decoder.
VIDEO: JK1003 - IC1021 pin 1
S-VIDEO: JK1001 - IC1021 pins 43 and 44
OK
B1
No picture appears in RGB input mode.
B2
No picture appears in YPBPR (YCBCR) input mode.
A
Confirm input signals to LPF (IC1025 pins 3, 7 and 27).
NG
A
Check conduction and components [Q (Tr), D, C, R] between JK1002 and the LPF.
OK
B3
No picture appears in AV1 input mode. (PT-AE200E only)
B4
(PT-AE200E only)
No picture appears in SD CARD input mode.
B5
No picture appears. (Assuming that the microcomputer, lamp and remote control unit are normal.)
A
Confirm output waveforms on connectors A1, A2 and A3.
OK
Check connections between A-P.C.Board (A1, A2, A3) and LCD block, or replace the LCD block (LCD panels).
NG
A
Confirm clock signals for the drive circuit.
MCLK: Crystal oscillator (X1001 pin 3) 68 MHz
LCDCLK: D-FF (IC1020 pin 5) 34 MHz
NG
A
Confirm the crystal oscillator (X1001).
OK
NG
A
Replace the crystal oscillator (X1001).
A
Replace D-FF (IC1020).
OK
③

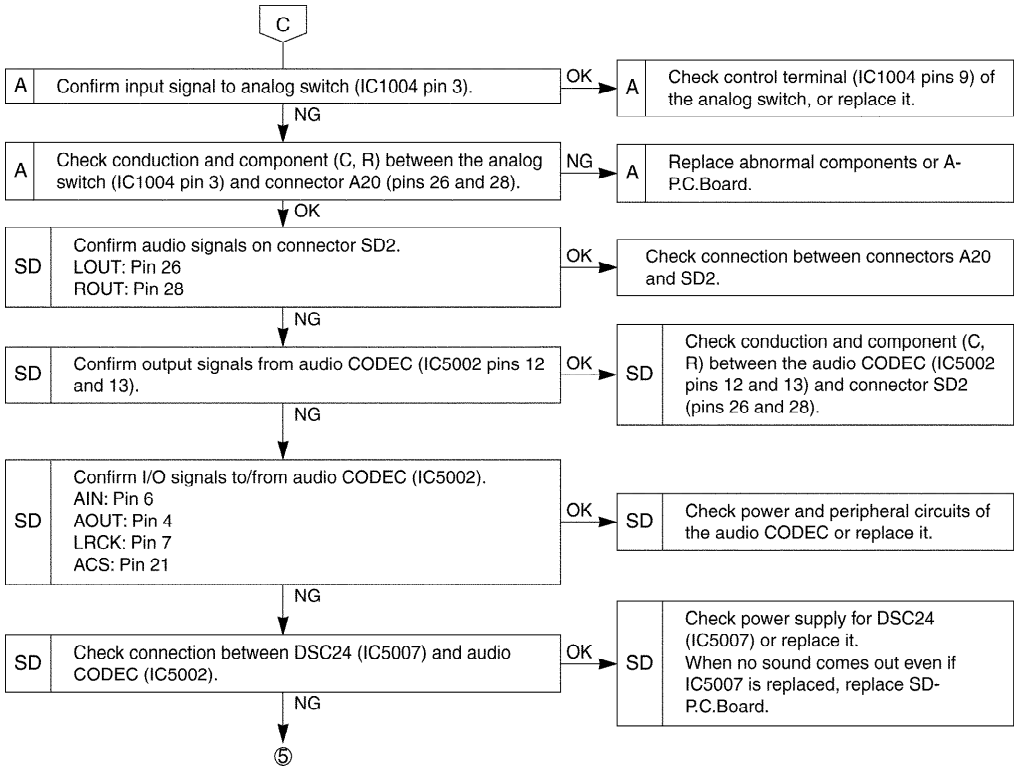

③
A
Video data check
Sampling hold ICs (IC1051-IC1053) output: Every pin 36 (TPA44, TPA42 and TPA43)
Level shift ICs (IC1057-IC1059) output: Every pin 22
OK
A
Confirm control signals.
Outputs from D/A converter (IC1060): Pins 14-19
OK
NG
A
Check D/A converter (IC1060): Power supply and SDA2 (pin 3) / SCL2 (pin 2) signals from the microcomputer
When they are normal, replace the D/A converter.
A
Check circuits between output terminals of ICs (IC1051-IC1053 and IC1057-IC1059) and connectors (A1-A3).
NG
A
Confirm output signals from LCD-LSI (IC1700).
R: Pins 12, 13, 16-18, 20-22, 35, 36
G: Pins 48, 49, 51-58
B: Pins 59, 62-70
OK
A
Check sampling hold ICs (IC1051-IC1053).
If they are abnormal, check the power supply or replace them.
NG
A
Confirm input signals to LCD-LSI (IC1700).
R: Pins 1, 2, 4-9, 207, 208
G: Pins 195-199, 202-206
B: Pins 167-174, 185, 186
OK
A
Confirm LCD-LSI (IC1700) clock and sync input signals.
LCDCLK: Pin 182
PLLCK: Pin 163
H-sync (LCDHS): Pin 140
V-sync (LCDVS): Pin 141
OK
NG
A
Check circuits between the LCD-LSI (IC1700) and the D-FF (IC1020) / resize IC (IC1005).
A
Check the LCD-LSI (IC1700).
If it is abnormal, check the power supply or replace it.
NG
A
Confirm output signals from resize IC (IC1005).
R: Pins 107, 109-112, 115-119
G: Pins 120-124, 127-131
B: Pins 132-135, 138-143
OK
A
Check conduction between the resize IC (IC1005) and the LCD-LSI (IC1700).
NG
A
Confirm OSD input signals to resize IC (IC1005 pins 94-98).
(Confirm the signals after pressing "MENU" button on the main unit or remote control unit.)
OK
A
Check the resize IC (IC1050).
If it is abnormal, check the power supply or replace it.
NG
A
Confirm OSD IC (IC1009) clock (pin 5), sync (pins 10 and 11), reset (pin 13) and OSD outputs of LCD-LSI (IC1700 pins 92, 93, 95, 98-103).
OK
A
Check conduction between the OSD output pins of LCD-LSI (IC1700) and the resize IC (IC1005).
NG
Check the LCD-LSI (IC1700).
If it is abnormal, check the power supply or replace it.

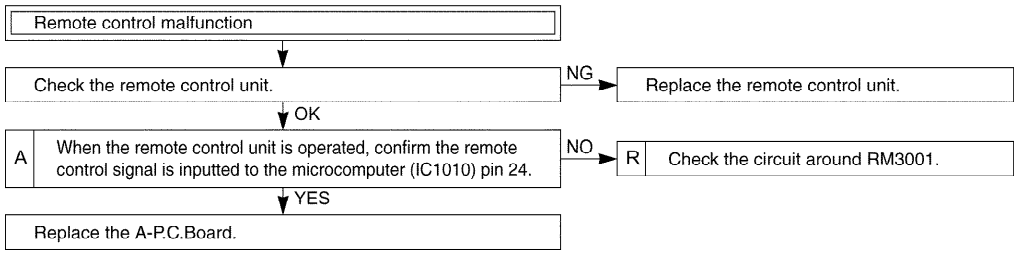

B1
A
Confirm analog output signals from video decoder (IC1021 pins 21-23).
NG
A
Confirm output signals from com filter (IC1022 pins 27 and 25).
OK
NG
A
Check the com filter (IC1022). If it is abnormal, check the power and peripheral circuits or replace it.
A
Confirm input signals to video decoder (IC1021 pins 5 and 7).
OK
NG
A
Check conduction and components between the com filter (IC1022) and the video decoder (IC1021).
A
Check power and peripheral circuits of the video decoder (IC1021) or replace it.
OK
A
Confirm input signals to LPF (IC1025 pins 1, 5 and 25).
NG
A
Check conduction between the video decoder (IC1021) and the LPF (IC1025).
OK
B3
A
Confirm output signals from LPF (IC1025 pins 14, 11 and 17).
NG
A
Confirm control terminal of the LPF (IC1025 pin 22).
NG
OK
A
Check power and peripheral circuits of the LPF or replace it.
A
Confirm YUV_VIDEO signal from LCD-LSI (IC1700 pin 91).
OK
NG
A
Check power and peripheral circuits of the LCD-LSI or replace it.
A
Check conduction between the LCD-LSI (IC1700) and the LPF (IC1025).
OK
A
Confirm Y, PB, PR and H-sync (HSYNC1) input signals to A/D converter (IC1001 pins 17, 23, 8 and 43) and V_HD (TPA9).
NG
A
Check conduction between the LPF (IC1025) and the A/D converter (IC1001). Check I/O signals to/from IC1018 and IC1002, or replace them.
OK
④


B2
A
Confirm RGB input signals to A/D converter (IC1001 pins 5, 13 and 20).
NG
A
Check components (R, LC, and C) between JK1005 and the A/D converter (IC1001) or replace them.
OK
④
A
Confirm output signals from A/D converter (IC1001).
R: Pins 113-120
G: Pins 90-97
B: Pins 70-77
NG
A
PLL in the A/D converter (IC1001) operation check
Confirm HSYNC and PLLHS are locked.
HSIN: TPA11 (for RGB signal)
HSYNC1: Pin 43 (for other signals)
PLLHS: TPA15
PLLCK: Pin 123
OK
OK
NG
A
For RGB signal, H-sync (HSYNC0) is not inputted to IC1001 pin 45
Check power supply and I/O signals (MASKPULS, etc.) for AND gate (IC1002) or replace it.
For other signals, H-sync (HSYNC1) is not inputted to IC1001 pin 43
Check power supply, I/O signals and control signal (YUV_VIDEO) for sync switch (IC1018) or replace it.
A
Check data settings and power supply for the A/D converter (IC1001) or replace it.
A
Resize IC (IC1005) video and sync inputs check
R: Pins 147-154
G: Pins 157-164
B: Pins 166-173
PIVS: TPA28
PIHS: TPA27
PICLK: Pin 178
NG
A
Check circuits between the resize IC (IC1005) and the A/D converter (IC1001) / LCD-LSI (IC1700).
Video inputs are abnormal: Resize IC - A/D converter
Sync inputs are abnormal: Resize IC - LCD-LSI
OK
A
Check power supply for the resize IC (IC1005) or replace it.
B4
(PT-AE200E only)
A
Check conduction and components (C) between connector A21 and video decoder (IC1021).
Y/C-21P (for Video): A21 pin 8 - IC1021 pin 41
R-21P (for RGB): A21 pin 2 - IC1021 pin 27
G-21P (for RGB): A21 pin 4 - IC1021 pin 26
B-21P (for RGB): A21 pin 6 - IC1021 pin 25
NG
A
J
Check connector A21 and the flat cable, or replace J-P.C.Board.
OK
A
Check power and peripheral circuits of the video decoder or replace it.


B5
An SD memory card is inserted correctly.
NO
Insert the SD memory card correctly.
YES
When displaying the SD menu by the remote control unit and selecting "PICTURE" or "VIDEO", then pressing the ENTER button, confirm that access lamp (D1064) flashes and "Folder" or "VIDEO FILE" selection screen is displayed.
NO
When the access lamp does not flash, check connection between connectors A20 and SD2.
When the selection screen is not displayed, check the SD memory card is normal and still or moving image data is saved. (If there is no still/moving image data that can be played back, the selection screen is not displayed.)
YES
A
Confirm video input signals to resize IC (IC1005).
Y: Pins 189-196
UV: Pins 181-188
YUVHS: Pin 197
YUVVS: Pin 198
YUVCLK: Pin 199
OK
A
Check power supply for the resize IC or replace it.
NG
A
Check conduction and components (LC, R) between connector A20 and resize IC (IC1005).
NG
A
Replace abnormal components or A-P.C.Board.
OK
SD
Confirm crystal oscillators.
X5002: 48 MHz
X5003: 27 MHz
NO
SD
Replace the crystal oscillator(s).
YES
SD
Confirm sync signals on connector SD2.
HD: TPSD1
VD: TPSD2
CLK: Pin 33
NG
SD
When not detecting HD and/or VD, check power supply for DSC24 (IC5007) or replace it.
When not detecting CLK, check I/O signals and power supply for inverter (IC5006) or replace it.
When cannot detecting sync signals even if the IC is replaced, replace SD-P.C.Board.
OK
⑤
SD
Confirm SD interface (IC5004).
SDCLK: Pin 31
SDDT0-SDDT3: Pins 29, 28, 35, 34
NG
SD
Check power and peripheral circuits of the SD interface or replace it.
OK
SD
Replace SD memory card slot (SD1).


No sound comes out.
No sound outputs in SD memory card.
No sound outputs.
C
Confirm audio input cables are connected properly.
NO
Connect or replace the cables.
YES
A
Confirm audio signals on connector A8.
AUDIO_P: Pin 2
AUDIO_N: Pin 1
NG
OK
A S
Check connection between connectors A8 and S1.
NG
Connect the cable properly or replace the cable/connector.
OK
S
Check connection between connector S3 and Speaker.
NG
Connect or replace the speaker cable.
OK
Check conduction between connectors S3 and S1, or replace the speaker.
A
Confirm output signals from audio amplifier (IC1026 pins 14 and 17).
OK
A
Check conduction between the audio amplifier and connector A8.
NG
A
Confirm input signal to audio amplifier (IC1026 pin 5).
OK
A
Check power supply and volume control [IC1026 pin 7 (mute when 0 V)] for the audio amplifier or replace it.
NG
A
Confirm output signals from analog switch (IC1004 pins 4 and 14).
OK
A
Check conduction and component (C1003) between the analog switch and the audio amplifier.
NG
A
Confirm input signal to analog switch (IC1004).
AUDIO IN L/R: Pin 5
AV1 (PT-AE200E only): Pin 13
OK
A
Check power supply, control terminals (IC1004 pins 9 and 11) and peripheral circuit of the analog switch, or replace it.
NG
A
AUDIO IN L/R:
Check conduction and component (C, R) between the analog switch (IC1004 pin 5) and JK1009.
AV1 (PT-AE200E only):
Check conduction between the analog switch (IC1004 pin 13) and connector A21 (pin 10).


C
A
Confirm input signal to analog switch (IC1004 pin 3).
OK
A
Check control terminal (IC1004 pins 9) of the analog switch, or replace it.
NG
A
Check conduction and component (C, R) between the analog switch (IC1004 pin 3) and connector A20 (pins 26 and 28).
NG
A
Replace abnormal components or A-P.C.Board.
OK
SD
Confirm audio signals on connector SD2.
LOUT: Pin 26
ROUT: Pin 28
OK
Check connection between connectors A20 and SD2.
NG
SD
Confirm output signals from audio CODEC (IC5002 pins 12 and 13).
OK
SD
Check conduction and component (C, R) between the audio CODEC (IC5002 pins 12 and 13) and connector SD2 (pins 26 and 28).
NG
SD
Confirm I/O signals to/from audio CODEC (IC5002).
AIN: Pin 6
AOUT: Pin 4
LRCK: Pin 7
ACS: Pin 21
OK
SD
Check power and peripheral circuits of the audio CODEC or replace it.
NG
SD
Check connection between DSC24 (IC5007) and audio CODEC (IC5002).
OK
SD
Check power supply for DSC24 (IC5007) or replace it.
When no sound comes out even if IC5007 is replaced, replace SD-P.C.Board.
NG
⑤




# 9. Interconnection Block Diagram

## 9.1. Interconnection Block Diagram (1/2)

## 9.2. Interconnection Block Diagram (2/2)

# 10. Block Diagram

## 10.1. Power Supply

## 10.2. Signal Processing (1/3)

## 10.3. Signal Processing (2/3)

## 10.4. Signal Processing (3/3)

# 11. Schematic Diagram

### Schematic Diagram for Model PT-AE200U

**IMPORTANT SAFETY NOTICE**

THE SHADED AREA ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM FIRE AND ELECTRICAL SHOCK HAZARDS.
WHEN SERVICING, IT IS ESSENTIAL THAT ONLY MANUFACTURER'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC.

### Schematic Diagram for Model PT-AE200E

**Important Safety Notice**

Components identified by the international symbol ⚠ have special characteristics important for safety. When replacing any of these components, use only the manufacturer's specified ones.

**Notes:**

1. **Resistor**
   All the resistors are carbon 1/4W resistors, unless marked as follows: The unit of resistance is an OHM [Ω] (K=1 000 M=1 000 000).
   - ○ : Nonflammable
   - △ : Solid
   - ⊿ : Wire Wound
   - ⊠ : Metal Oxide
   - ◎ : Metal Film
   - ⊗ : Fuse
2. **Capacitor**
   - ⊗ : Temperature Compensation
   - Ⓜ : Polyester
   - ⓜ : Metalized Polyester
   - ⊠ : Polypropylene
   - : Electrolytic
   - NP : Bipolar
   - Ⓣ : Dipped Tantalum
   - Ⓩ : Z-Type
3. **Coil**
   The unit of inductance is a μH, unless otherwise noted.
4. **Test Point**
   : Test Point
5. **Voltage Measurement**
   The voltage is measured by an electronic voltmeter receiving the colorbar signal when all the customer's controls are set to the standard condition.
6. **Color code for the links between diagrams and circuit boards**

| From/To | | To/From | Color code |
|---|---|---|---|
| Block diagram | ⟷ | Schematic diagram | Magenta |
| Schematic diagram | ⟷ | Schematic diagram | Green |
| Schematic diagram | ⟷ | Circuit boards | Yellow |
| Schematic diagram | ⟷ | Waveforms | Cyan (Light blue) |

7. **HOT and COLD indications**
   The power circuit board contains a circuit area using a separate power supply to isolate the ground connection. The circuit is defined by HOT and COLD indications in the schematic diagram. Take the precautions below:
8. **This schematic diagram is the latest at the time of printing and the subject to change without notice.**

**Precautions:**

1. NEVER touch the HOT part or the HOT and COLD parts at the same time, or you may get an electric shock.
2. NEVER short-circuit the HOT and COLD circuits, or the fuse may blow and the parts may break.
3. NEVER connect an instrument such oscilloscope to the HOT and COLD circuit simultaneously, or the fuse may blow.Connect the ground of instruments to the ground of the circuit being measured.
4. MAKE SURE to unplug the power cord from the power outlet before removing the chassis.

## 11.1. A-P.C.Board (1/5)

## 11.2. A-P.C.Board (2/5)

## 11.3. A-P.C.Board (3/5)

## 11.4. A-P.C.Board (4/5)

## 11.5. A-P.C.Board (5/5)

## 11.6. SD-P.C.Board

## 11.7. S-P.C.Board, R-P.C.Board, J-P.C.Board

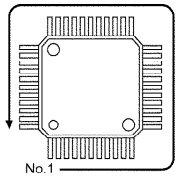
## 11.8. B-Module

# 12. Circuit Boards

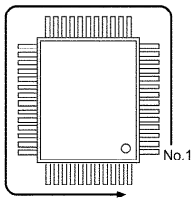
## 12.1. A-P.CBoard (Foil Side) SD-P.C.Board

## 12.2. A-P.C.Board (Component Side) S-P.C.Board

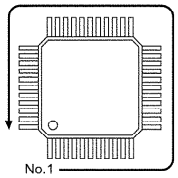
# 13. Terminal guide of ICs and transistors



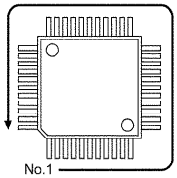

C1AB00001716 208 Pin



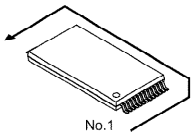

C0FBAD000067 128 Pin
C1AB00001556 48 Pin



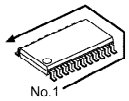

C1AB00001522 48 Pin
C1AB00001523 48 Pin



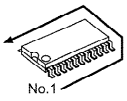

C2GBC0000135 112 Pin



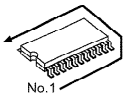

TVRJ814 48 Pin



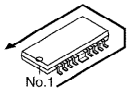

C0ZBZ000712 28 Pin
C3ABPJ000035 86 Pin
C1AB00000740 16 Pin
C0JBAZ000855 20 Pin
C0FBBD000087 24 Pin
C0JBAF000315 20 Pin



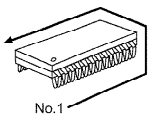

C1BB00000646 20 Pin



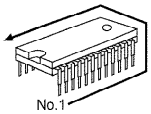

C1AB00001555 28 Pin



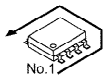

C1AB00001720 28 Pin




C3BBFC000127 28 Pin

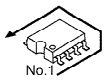



C1AA00000392 20 Pin




C0JBAR000370 16 Pin
C0EBB000024 8 Pin

C0DBEZE00002 5 Pin
C0DBEZG00004 5 Pin




C3EBCC000045 8 Pin
C3EBJC000037 8 Pin

AN78L12M 3 Pin

C0DBZHD00005 5 Pin

2SB709A
2SD601AR
2SB710A

# 14. Exploded Views

# 15. Replacement Parts List

**Important Safety Notice**

Components identified by the International symbol ⚠ have special characteristics important for safety.
When replacing any of these components, use only the manufacturer's specified parts.

**Abbreviation of part name and description**

1. Resistor

Example:

**ERD25TJ104 C 100KOHM, J, 1/4W**

TYPE ALLOWANCE

| TYPE | ALLOWANCE |
|---|---|
| C : Carbon | F : ± 1 % |
| F : Fuse | G : ± 2 % |
| M : Metal Oxide | J : ± 5 % |
| Metal Film | K : ±10% |
| S : Solid | M : ±20% |
| W : Wire Wound | |

2. Capacitor

Example:

**ECKF1H103ZF C 0.01PF, Z, 50V**

TYPE ALLOWANCE

| TYPE | ALLOWANCE |
|---|---|
| C : Ceramic | C : ±0.25 pF |
| E : Electrolytic | D : ±0.5 pF |
| P : Polyester | F : ± 1 pF |
| PP : Polypropylene | J : ± 5 % |
| S : Polystyrol | K : ±10 % |
| T : Tantalum | L : ±15 % |
| | M : ±20 % |
| | P : +100 %, -0 % |
| | Z : +80 %, -20 % |

**Notes:**

For G** of Ref. No., not indicate illustration of it part on "Exploded Views".
Printed circuit board assembly with mark (RTL) is no longer available after production discontinuation of the complete set.

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| | | | |
| [MECHANICAL PARTS] | | | |
| | | | |
| G1 | D4CDH5030002 | TEMP SENSOR | |
| G2 | J0KG00000052 | CORE | ⚠ |
| K1 | K0AAKA000009 | AC SWITCH | ⚠ |
| K2 | K2CG3FR00001 | POWER CORD | ⚠ / PT-AE200U |
| K2-1 | K2CM3FR00001 | POWER CORD(EUROPE) | ⚠ / PT-AE200E |
| K2-2 | K2CT3FR00001 | POWER CORD(ENGLAND) | ⚠ / PT-AE200E |
| K3 | K2KA2FA00001 | AV CABLE | |
| K4 | L0AA04C00002 | SPEAKER | |
| K5 | L6FAKCEH0004 | FAN (POWER UNIT) | ⚠ |
| K6 | L6FALEFH0019 | FAN (VENTILATION FAN) | ⚠ |
| K7 | L6FCJC9H0003 | PBS FAN | ⚠ |
| K8 | L6FCKEBH0002 | FAN | ⚠ |
| K9 | N2QAFA000002 | REMOTE CONTROLLER | ⚠ |
| K10 | TBLB0041 | ADJUST LEG (RIGHT) | |
| K11 | TBLB0042 | ADJUST LEG (LEFT) | |
| K12 | TBLG3042 | RUBBER LEG (REAR) | |
| G3 | TBME836 | MODEL NAME PLATE | PT-AE200U |
| | TBME837 | MODEL NAME PLATE | PT-AE200E |
| K13 | TBXA38001 | CONTROL BUTTON | |
| K14 | TEEC5063-1 | OPTICAL DUCT | |
| K15 | TEEC5108 | DUCT | |
| K16 | TEFC5022 | SD COVER | |
| K17 | TENC0143 | POLARIZING PLATE/IN (R) | OPTICAL LABEL= TXZKG01VJN9C |
| K18 | TENC0144 | POLARIZING PLATE/IN (G) | |
| K17 | TENC0146 | POLARIZING PLATE/IN (R) | OPTICAL LABEL= TXZKG01VJN9D |
| K18 | TENC0147 | POLARIZING PLATE/IN (G) | |
| K19 | TENC0145 | POLARIZING PLATE/IN (B) | |
| G4 | TEWA195 | SPACER | |
| G5 | TEWA196 | SPACER | |
| G6 | THEC035N | SCREW | |
| K20 | TKGF0056 | PBS ARRAY | |
| K21 | TKGF0076 | LENS | |
| K22 | TKKC5159 | LED PLATE | |
| K23 | TKKL5249 | LENS COVER | |
| K24 | TKNE044 | FILTER | |
| G7 | TKPA72502 | FRONT PANEL (LEFT) | PT-AE200U |
| | TKPA72503 | FRONT PANEL (LEFT) | PT-AE200E |
| G8 | TKPA72602 | FRONT PANEL (RIGHT) | |
| K25 | TKZF5024-1 | TERMINAL METAL(A-PCB) | |
| K26 | TKZJ5042 | VENTILATION FAN METAL | |
| G9 | TMKG357 | SPEAKER SPACER | |
| G10 | TMKG371 | SD SPONGE | |
| G11 | TMKX100 | WASHER | |
| K27 | TMKX332-1 | SHEET (POWER UNIT) | |
| G12 | TMKX355 | SHIELD SHEET (A-PCB) | |
| G13 | TMKX359-1 | SHEET (POWER UNIT) | |
| G14 | TMKX407 | FUSE SHEET | |
| K28 | TMKX470 | SD SOCKET COVER | |
| K29 | TMKX471 | VENTILATION FAN COVER | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| G15 | TMME154 | FUSE COVER | |
| G16 | TMME196 | SPACER | |
| K30 | TMMX089 | LAMP POWER HOLDER | |
| K31 | TMXC017 | TEMP FUSE METAL | |
| K32 | TMZX5018 | FILTER COVER | |
| G17 | TPCB32002 | CARTON | PT-AE200U |
| | TPCB32003 | CARTON | PT-AE200E |
| G18 | TPDA0721 | SIDE PAD | |
| G19 | TPDF0818 | ACCESSARY PACKING CASE | |
| G20 | TPDF0925-1 | CUSHION | |
| G21 | TPDF0926-1 | CARRING CASE CUSHION | |
| G22 | TPDF1002 | PAD | |
| G23 | TPEH124 | SET COVER | |
| G24 | TPEP008 | CARRING CASE | |
| G25 | TQB817002-1 | SAFETY SHEET | PT-AE200U |
| G26 | TQBH7007-1 | SHEET | |
| G27 | TQBH7011 | GPL SHEET | |
| G28 | TQBJ0115 | INSTRUCTION BOOK | ⚠ / PT-AE200U |
| | TQBJ0116 | INSTRUCTION BOOK | ⚠ / PT-AE200E |
| G29 | TQBJ7002-1 | SHEET | PT-AE200U |
| G30 | TQDJ18011 | GUARANTEE CARD (USA) | PT-AE200U |
| G31 | TQDJ18012 | GUARANTEE CARD (CANADA) | PT-AE200U |
| G32 | TQF86202 | LABEL | |
| K33 | TSEX8005 | SWITCH | ⚠ K0ADBF000007 |
| G33 | TSXL267 | FLEXIBLE CABLE (50P) | |
| K34 | TTPA0285 | TERMINAL COVER ASSY | PT-AE200U |
| | TTPA0286 | TERMINAL COVER ASSY | PT-AE200E |
| G34 | TUCA5006 | SHIELD BOARD(D-TERMINAL) | PT-AE200E |
| K35 | TUCA5007A | SHIELD BOARD | |
| K36 | TUCC5830 | POWER BOX | |
| K37 | TUCX5124 | GROUND METAL(A-P-S) | |
| K38 | TUCX5120 | GROUND METAL(KZ-P) | |
| K39 | TUWC046 | INSTAL METAL (K-PCB) | |
| K40 | TXFKK01VJN9 | LAMP COVER | |
| G35 | TXJ/K1VJJ3B | TEMPERATURE FUSE | ⚠ |
| K41 | XSN3+8FZ | SCREW | |
| K42 | XSN4+10 | SCREW | |
| G36 | XSN4+15 | SCREW | |
| G37 | XTBT969Z | SCREW | |
| G38 | XTN3+6G | SCREW | |
| G39 | XTV3+10G | SCREW | |
| G40 | XTW3+8P | TAPPING SCREW | |
| G41 | XYN2+F6 | SCREW | |
| G42 | XYN3+F20 | SCREW | |
| G43 | XYN3+F30FZ | SCREW | |
| G44 | XYN3+F6 | SCREW | |
| G45 | XYN3+F8 | SCREW | |
| G46 | XYN3+J8 | SCREW | |
| G47 | XYN4+E8 | SCREW | |
| G48 | XYN4+J10 | SCREW | |
| K43 | XYN4+J30 | SCREW | |
| G49 | XZBT6532 | BAG | PT-AE200U |
| K44 | TXFKF98PRQZ | UPPER COVER ASSY | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| K45 | TXFKF99PRQZ | BOTTOM COVER ASSY | PT-AE200U |
| | TXFKF99PRRZ | BOTTOM COVER ASSY | PT-AE200E |
| K46 | TXFEN99VJN9 | OPTICAL BLOCK | OPTICAL LABEL= TXZKG01VJN9C |
| K47 | TXFEC99VJR1 | ANALYSIS BLOCK | |
| K46 | TXFEN99VJN9A | OPTICAL BLOCK | OPTICAL LABEL= TXZKG01VJN9D |
| K47 | TXFEC99VJR1A | ANALYSIS BLOCK | |
| | | | |
| [INTEGRATED CIRCUIT] | | | |
| | | | |
| IC101 | C0DBZZZ00046 | I.C | |
| IC1001 | C0FBAD000067 | I.C | |
| IC1002 | TC7SH08F | I.C | |
| IC1003 | M52036SP | I.C | C1AA00000392 |
| IC1004 | C0JBAR000370 | I.C | |
| IC1005 | C1AB00001524 | I.C | |
| IC1006 | C3ABPJ000035 | I.C | |
| IC1009 | C0ZBZ0000624 | I.C | |
| IC1010 | C2GBC0000135 | I.C | |
| IC1011 | TVRJ814-1 | I.C | |
| IC1012 | TC74LCX574FT | I.C | |
| IC1013 | TC7SH32FTL | I.C | C0JBAE000146 |
| IC1016 | M51957BFP | I.C | C0EBB0000024 |
| IC1017 | C3EBJC000037 | I.C | |
| IC1018 | C0JBAZ000280 | I.C | |
| IC1020 | C0JBAF000367 | I.C | |
| IC1021 | C1AB00001556 | I.C | |
| IC1022 | C1AB00001555 | I.C | |
| IC1024 | C3EBCC000045 | I.C | |
| IC1025 | C1AB00001720 | I.C | |
| IC1026 | C1BB00000646 | I.C | |
| IC1027 | C3BBFC000127 | I.C | |
| IC1029 | C0DBEZE00002 | I.C | |
| IC1030 | C0DBEZE00002 | I.C | |
| IC1037 | C0DBEZG00004 | I.C | |
| IC1041 | C0DBZHD00005 | I.C | |
| IC1042 | C0CBABD00015 | I.C | |
| IC1046 | C0DBZHD00005 | I.C | |
| IC1051 | C1AB00001523 | I.C | |
| IC1052 | C1AB00001523 | I.C | |
| IC1053 | C1AB00001523 | I.C | |
| IC1057 | C1AB00001522 | I.C | |
| IC1058 | C1AB00001522 | I.C | |
| IC1059 | C1AB00001522 | I.C | |
| IC1060 | M62398FP | I.C | C0FBBD000087 |
| IC1061 | AN78L12M | I.C | |
| IC1071 | C0JBAZ000855 | I.C | |
| IC1700 | C1AB00001721 | I.C | |
| IC1701 | C0DBEZG00004 | I.C | |
| IC5001 | TVRJ815-1 | I.C | |
| IC5002 | C1BB00000738 | I.C | |
| IC5003 | C3ABQJ000007 | I.C | |
| IC5004 | MN5773 | I.C | |
| IC5005 | C0JBAF000367 | I.C | |
| IC5006 | C0JBAB000003 | I.C | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| IC5007 | C1AB00001750 | I.C | |
| IC5009 | C0DBFFD00003 | I.C | |
| IC9602 | C0ZAZ0000077 | I.C | |
| IC9603 | C0ZAZ0000077 | I.C | |
| IC9701 | C0DBALC00005 | I.C | |
| IC9707 | AN78L09M | I.C | |
| IC9708 | AN78L05M | I.C | |
| | | | |
| [TRANSISTORS] | | | |
| | | | |
| Q101 | 2SK2837 | TRANSISTOR | B1DEHQ000001 |
| Q131 | B1DEGQ000017 | TRANSISTOR | |
| Q251 | UN2211 | TRANSISTOR | UNR2211 |
| Q1001 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1002 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1003 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1004 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1005 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1006 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1007 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1008 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1009 | 2SB709A | TRANSISTOR | 2SB0709A |
| Q1010 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1011 | 2SB709A | TRANSISTOR | 2SB0709A |
| Q1012 | 2SB709A | TRANSISTOR | 2SB0709A |
| Q1014 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1016 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1018 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1019 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1020 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1023 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1024 | 2SB709A | TRANSISTOR | 2SB0709A |
| Q1025 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1026 | 2SB709A | TRANSISTOR | 2SB0709A |
| Q1027 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1028 | 2SB709A | TRANSISTOR | 2SB0709A |
| Q1029 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1030 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1031 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1032 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1037 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1039 | 2SB709A | TRANSISTOR | 2SB0709A |
| Q1040 | 2SB709A | TRANSISTOR | 2SB0709A |
| Q1041 | 2SB709A | TRANSISTOR | 2SB0709A |
| Q1042 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1043 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1044 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1045 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1046 | 2SB709A | TRANSISTOR | 2SB0709A |
| Q1047 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1048 | 2SB709A | TRANSISTOR | 2SB0709A |
| Q1049 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1050 | 2SB709A | TRANSISTOR | 2SB0709A |
| Q1051 | 2SD601AR | TRANSISTOR | 2SD0601AR |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| Q1052 | 2SB709A | TRANSISTOR | 2SB0709A |
| Q1053 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1054 | 2SB709A | TRANSISTOR | 2SB0709A |
| Q1055 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1056 | 2SB709A | TRANSISTOR | 2SB0709A |
| Q1070 | 2SK620 | FET | 2SK0620 |
| Q1071 | 2SK620 | FET | 2SK0620 |
| Q1073 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1074 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q1075 | 2SB709A | TRANSISTOR | 2SB0709A |
| Q1700 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q2001 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q2002 | 2SD601AR | TRANSISTOR | 2SD0601AR |
| Q2003 | 2SB709A | TRANSISTOR | 2SB0709A |
| Q2004 | 2SB709A | TRANSISTOR | 2SB0709A |
| Q3401 | 2SD601AR | TRANSISTOR | PT-AE200E |
| Q3402 | 2SD601AR | TRANSISTOR | PT-AE200E |
| Q3403 | 2SD601AR | TRANSISTOR | PT-AE200E |
| Q3404 | 2SD601AR | TRANSISTOR | PT-AE200E |
| Q9603 | B1DEGQ000017 | TRANSISTOR | |
| Q9604 | 2SB710A | TRANSISTOR | 2SB0710A |
| Q9605 | 2SB710A | TRANSISTOR | 2SB0710A |
| Q9606 | B1JACQ000002 | TRANSISTOR | |
| Q9607 | B1JACQ000002 | TRANSISTOR | |
| Q9608 | 2SB710A | TRANSISTOR | 2SB0710A |
| Q9609 | 2SB710A | TRANSISTOR | 2SB0710A |
| Q9610 | B1JACQ000002 | TRANSISTOR | |
| Q9611 | B1JACQ000002 | TRANSISTOR | |
| Q9612 | B1DEGQ000017 | TRANSISTOR | |
| | | | |
| [DIODES] | | | |
| | | | |
| D101 | B0FBBR000011 | DIODE | |
| D151 | S1VBA60 | DIODE | |
| D1001 | MA3056M | ZENER DIODE | MAZ30560M |
| D1002 | MA3033H | DIODE | |
| D1003 | MA3033H | DIODE | |
| D1004 | MA3056M | ZENER DIODE | MAZ30560M |
| D1005 | MA3056M | ZENER DIODE | MAZ30560M |
| D1006 | MA3033H | DIODE | |
| D1007 | MA3056M | ZENER DIODE | MAZ30560M |
| D1008 | MA3056M | ZENER DIODE | MAZ30560M |
| D1009 | MA157A | DIODE | MA3X157A |
| D1010 | MA157A | DIODE | MA3X157A |
| D1011 | MA157A | DIODE | MA3X157A |
| D1012 | MA157A | DIODE | MA3X157A |
| D1013 | MA157A | DIODE | MA3X157A |
| D1021 | MA157A | DIODE | MA3X157A |
| D1022 | LNJ208R8ARA | LED | |
| D1025 | MA157A | DIODE | MA3X157A |
| D1026 | MA157A | DIODE | MA3X157A |
| D1027 | MA157A | DIODE | MA3X157A |
| D1030 | MA157A | DIODE | MA3X157A |
| D1031 | MA157A | DIODE | MA3X157A |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| D1032 | MA723 | DIODE | |
| D1064 | LNJ310M6URA | LED | |
| D1066 | D4B503390001 | THERMISTOR | |
| D2001 | LNJ208R8ARA | LED | |
| D2002 | LNJ208R8ARA | LED | |
| D2003 | LNJ107W5ARA1 | LED | |
| D3001 | MA157A | DIODE | MA3X157A |
| D3401 | MA157A | DIODE | PT-AE200E |
| D3402 | MA3056M | ZENER DIODE | PT-AE200E |
| D3403 | MA157A | DIODE | PT-AE200E |
| D3404 | MA157A | DIODE | PT-AE200E |
| D3405 | MA157A | DIODE | PT-AE200E |
| D9101 | ERZV14D471 | VARISTOR | ⚠ |
| D9612 | MA158 | DIODE | MA3X158 |
| D9613 | MA720 | DIODE | MA3X720 |
| D9615 | MA158 | DIODE | MA3X158 |
| D9616 | MA720 | DIODE | MA3X720 |
| D9618 | MA158 | DIODE | MA3X158 |
| D9619 | MA720 | DIODE | MA3X720 |
| D9621 | MA158 | DIODE | MA3X158 |
| D9622 | MA720 | DIODE | MA3X720 |
| | | | |
| [COILS] | | | |
| | | | |
| L1001 | EXCML16A270U | COIL | |
| L1002 | EXCML16A270U | COIL | |
| L1003 | ELJFA470JF | COIL | |
| L1004 | ELJFA470JF | COIL | |
| L1006 | ELJFA270JF | COIL | |
| L1007 | ELJFA270JF | COIL | |
| L1008 | EXCML16A270U | COIL | |
| L1009 | EXCML16A270U | COIL | |
| L1010 | EXCML16A270U | COIL | |
| L1012 | EXCML16A270U | COIL | |
| L1013 | EXCML16A270U | COIL | |
| L1014 | EXCML16A270U | COIL | |
| L1015 | EXCML16A270U | COIL | |
| L1016 | EXCML16A270U | COIL | |
| L1017 | ELJFA470JF | COIL | |
| L1018 | EXCML16A270U | COIL | |
| L1019 | ELJFA6R8JB | CHIP COIL | |
| L1020 | ELJFA470JF | COIL | |
| L1022 | EXCML16A270U | COIL | |
| L1023 | EXCML16A270U | COIL | |
| L1024 | EXCML16A270U | COIL | |
| L1025 | EXCML16A270U | COIL | |
| L1026 | EXCML16A270U | COIL | |
| L1027 | EXCML16A270U | COIL | |
| L1028 | EXCML16A270U | COIL | |
| L1029 | EXCML16A270U | COIL | |
| L1030 | EXCML16A270U | COIL | |
| L1031 | EXCML16A270U | COIL | |
| L1032 | EXCML16A270U | COIL | |
| L1033 | EXCML16A270U | COIL | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| L1034 | EXCML16A270U | COIL | |
| L1035 | EXCML16A270U | COIL | |
| L1036 | EXCML16A270U | COIL | |
| L1037 | EXCML16A270U | COIL | |
| L1038 | EXCML16A270U | COIL | |
| L1039 | EXCML16A270U | COIL | |
| L1040 | EXCML16A270U | COIL | |
| L1041 | EXCML16A270U | COIL | |
| L1042 | EXCML16A270U | COIL | |
| L1044 | EXCML16A270U | COIL | |
| L1047 | EXCML16A270U | COIL | |
| L1051 | EXCML16A270U | COIL | |
| L1053 | ELJFA150JF | COIL | |
| L1056 | EXCML16A270U | COIL | |
| L1700 | EXCML16A270U | COIL | |
| L3401 | EXCML16A270U | COIL | PT-AE200E |
| L3402 | EXCML16A270U | COIL | PT-AE200E |
| L5001 | EXCML16A270U | COIL | |
| L5002 | EXCML16A270U | COIL | |
| L5003 | EXCML16A270U | COIL | |
| L5004 | EXCML16A270U | COIL | |
| L5005 | EXCML16A270U | COIL | |
| L5006 | EXCML16A270U | COIL | |
| L9101 | G0BYYYG00006 | COIL | ⚠ |
| LC1003 | J0HABB000015 | FILTER | |
| LC1004 | J0HABB000015 | FILTER | |
| LC1005 | J0HABB000015 | FILTER | |
| LC1100 | EZASCE101M | CAPACITOR ARRAY | |
| LC1101 | EZASCE101M | CAPACITOR ARRAY | |
| LC1102 | EZASCE101M | CAPACITOR ARRAY | |
| LC1103 | EZASCE101M | CAPACITOR ARRAY | |
| LC1106 | EXCCET103U | EMI FILTER | |
| LC5003 | EXCCET103U | EMI FILTER | |
| | | | |
| [RESISTORS] | | | |
| | | | |
| R134 | ERX2SJ3R3 | M 3.3 OHM, 2W | |
| R151 | ERDS1TJ100 | C 10 OHM,J, 1/2W | |
| R1001 | ERJ3GEYJ223 | M 22K OHM,J,1/16W | |
| R1002 | ERJ3GEYJ223 | M 22K OHM,J,1/16W | |
| R1003 | ERJ6ENF75R0 | M 75 OHM, 1/10W | |
| R1004 | ERJ6ENF75R0 | M 75 OHM, 1/10W | |
| R1005 | ERJ6ENF75R0 | M 75 OHM, 1/10W | |
| R1006 | ERJ3GEYJ183 | M 18K OHM,J,1/16W | |
| R1007 | ERJ3GEYJ331 | M 330 OHM,J,1/16W | |
| R1008 | ERJ3GEYJ331 | M 330 OHM,J,1/16W | |
| R1009 | ERJ3GEYJ102 | M 1K OHM,J,1/16W | |
| R1010 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1011 | ERJ3GEYJ562 | M 5.6KOHM,J,1/16W | |
| R1012 | ERJ3GEYJ104 | M 100KOHM,J,1/16W | |
| R1013 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1014 | ERJ3GEYJ562 | M 5.6KOHM,J,1/16W | |
| R1015 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1016 | ERJ3GEYJ562 | M 5.6KOHM,J,1/16W | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| R1017 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1018 | ERJ3GEYJ560 | M 56 OHM,J,1/16W | |
| R1019 | ERJ3GEYJ560 | M 56 OHM,J,1/16W | |
| R1020 | ERJ6ENF75R0 | M 75 OHM, 1/10W | |
| R1021 | ERJ6ENF75R0 | M 75 OHM, 1/10W | |
| R1022 | ERJ3GEYJ100 | M 10 OHM,J,1/16W | |
| R1026 | ERJ3GEYJ560 | M 56 OHM,J,1/16W | |
| R1027 | ERJ3GEYJ560 | M 56 OHM,J,1/16W | |
| R1028 | ERJ3GEYJ331 | M 330 OHM,J,1/16W | |
| R1030 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1031 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1032 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1033 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1034 | ERJ3GEYJ562 | M 5.6KOHM,J,1/16W | |
| R1035 | ERJ3GEYJ471 | M 470 OHM,J,1/16W | |
| R1036 | ERJ3GEYJ471 | M 470 OHM,J,1/16W | |
| R1037 | ERJ3GEYJ471 | M 470 OHM,J,1/16W | |
| R1038 | ERJ3GEYJ471 | M 470 OHM,J,1/16W | |
| R1039 | ERJ6ENF75R0 | M 75 OHM, 1/10W | |
| R1040 | ERJ6ENF75R0 | M 75 OHM, 1/10W | |
| R1041 | ERJ6ENF75R0 | M 75 OHM, 1/10W | |
| R1042 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1043 | ERJ3GEYJ471 | M 470 OHM,J,1/16W | |
| R1044 | ERJ3GEYJ681 | M 680 OHM,J,1/16W | |
| R1045 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1046 | ERJ3GEYJ473 | M 47K OHM,J,1/16W | |
| R1047 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1048 | ERJ3GEYJ122 | M 1.2KOHM,J,1/16W | |
| R1051 | ERJ3GEYJ331 | M 330 OHM,J,1/16W | |
| R1052 | ERJ3GEYJ273 | M 27KOHM,J,1/16W | |
| R1053 | ERJ3GEYJ392 | M 3.9KOHM,J,1/16W | |
| R1055 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1056 | ERJ3GEYJ560 | M 56 OHM,J,1/16W | |
| R1057 | ERJ3GEYJ560 | M 56 OHM,J,1/16W | |
| R1058 | ERJ1TYJ470 | M 47 OHM, J, 1W | |
| R1059 | ERJ1TYJ470 | M 47 OHM, J, 1W | |
| R1060 | ERJ1TYJ470 | M 47 OHM, J, 1W | |
| R1061 | ERJ3GEYJ471 | M 470 OHM,J,1/16W | |
| R1062 | ERJ1TYJ470 | M 47 OHM, J, 1W | |
| R1063 | ERJ3GEYJ154 | M 150KOHM,J,1/16W | |
| R1064 | ERJ3GEYJ473 | M 47K OHM,J,1/16W | |
| R1065 | ERJ3GEYJ102 | M 1K OHM,J,1/16W | |
| R1066 | ERJ3GEYJ102 | M 1K OHM,J,1/16W | |
| R1067 | ERJ3GEYJ560 | M 56 OHM,J,1/16W | |
| R1068 | ERJ3GEYJ102 | M 1K OHM,J,1/16W | |
| R1069 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1070 | ERJ3GEYJ562 | M 5.6KOHM,J,1/16W | |
| R1071 | ERJ3GEYJ102 | M 1K OHM,J,1/16W | |
| R1072 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1073 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | |
| R1074 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1077 | ERJ3GEYJ471 | M 470 OHM,J,1/16W | |
| R1078 | ERJ3GEYJ821 | M 820 OHM,J,1/16W | |
| R1079 | ERJ3GEYJ821 | M 820 OHM,J,1/16W | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| R1080 | ERJ6ENF2001 | M 2KOHM, 1/10W | |
| R1081 | ERJ3GEYJ180 | M 18 OHM,J,1/16W | |
| R1084 | ERJ3GEYJ180 | M 18 OHM,J,1/16W | |
| R1085 | ERJ3GEYJ102 | M 1K OHM,J,1/16W | |
| R1087 | ERJ3GEYJ182 | M 1.8KOHM,J,1/16W | |
| R1088 | ERJ3GEYJ331 | M 330 OHM,J,1/16W | |
| R1089 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1090 | ERJ6ENF1000 | M 100 OHM, 1/10W | |
| R1093 | ERJ3GEYJ562 | M 5.6KOHM,J,1/16W | |
| R1094 | ERJ3GEYJ471 | M 470 OHM,J,1/16W | |
| R1095 | ERJ3GEYJ222 | M 2.2KOHM,J,1/16W | |
| R1096 | ERJ3GEYJ180 | M 18 OHM,J,1/16W | |
| R1097 | ERJ3GEYJ681 | M 680 OHM,J,1/16W | |
| R1100 | ERJ3GEYJ562 | M 5.6KOHM,J,1/16W | |
| R1101 | ERJ3GEYJ333 | M 33K OHM,J,1/16W | |
| R1102 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1103 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1104 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1105 | ERJ6ENF2001 | M 2KOHM, 1/10W | |
| R1106 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1109 | ERJ3GEYJ154 | M 150KOHM,J,1/16W | |
| R1110 | ERJ3GEYJ473 | M 47K OHM,J,1/16W | |
| R1111 | ERJ3GEYJ471 | M 470 OHM,J,1/16W | |
| R1112 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1113 | ERJ6ENF1000 | M 100 OHM, 1/10W | |
| R1114 | ERJ3GEYJ681 | M 680 OHM,J,1/16W | |
| R1115 | ERJ3GEYJ562 | M 5.6KOHM,J,1/16W | |
| R1116 | ERJ3GEYJ560 | M 56 OHM,J,1/16W | |
| R1117 | ERJ3GEYJ333 | M 33K OHM,J,1/16W | |
| R1118 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1119 | ERJ3GEYJ562 | M 5.6KOHM,J,1/16W | |
| R1120 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1121 | ERJ3GEYJ223 | M 22K OHM,J,1/16W | |
| R1122 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1123 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1125 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1126 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1127 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1128 | ERJ3GEYJ102 | M 1K OHM,J,1/16W | |
| R1129 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1130 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1131 | ERJ6GEYJ3R3 | M 3.3OHM,J,1/10W | |
| R1132 | ERJ6GEYJ3R3 | M 3.3OHM,J,1/10W | |
| R1133 | ERJ6GEYJ3R3 | M 3.3OHM,J,1/10W | |
| R1134 | ERJ6GEYJ3R3 | M 3.3OHM,J,1/10W | |
| R1135 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1137 | ERJ3GEYJ560 | M 56 OHM,J,1/16W | |
| R1138 | ERJ3GEYJ102 | M 1K OHM,J,1/16W | |
| R1139 | ERJ3GEYJ102 | M 1K OHM,J,1/16W | |
| R1140 | ERJ3GEYJ151 | M 150 OHM,J,1/16W | |
| R1141 | ERJ3GEYJ151 | M 150 OHM,J,1/16W | |
| R1142 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1143 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1144 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| R1145 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R1146 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1148 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R1149 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1150 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R1151 | ERJ3GEYJ104 | M 100KOHM,J,1/16W | |
| R1152 | EXB38V101J | RESISTOR ARRAY | |
| R1153 | ERJ3GEYJ222 | M 2.2KOHM,J,1/16W | |
| R1154 | ERJ6ENF3301 | M 3.3KOHM, 1/10W | |
| R1155 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1156 | ERJ3GEYJ183 | M 18K OHM,J,1/16W | |
| R1157 | EXB38V101J | RESISTOR ARRAY | |
| R1158 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R1159 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1161 | ERJ3GEYJ682 | M 6.8KOHM,J,1/16W | |
| R1164 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1165 | ERJ3GEYJ183 | M 18K OHM,J,1/16W | |
| R1167 | ERJ6ENF2702 | M 27KOHM, 1/10W | |
| R1168 | ERJ3GEYJ182 | M 1.8KOHM,J,1/16W | |
| R1169 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1170 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1171 | ERJ3GEYJ182 | M 1.8KOHM,J,1/16W | |
| R1172 | ERJ3GEYJ272 | M 2.7KOHMJ,J1/16W | |
| R1173 | ERJ3GEYJ182 | M 1.8KOHM,J,1/16W | |
| R1174 | EXB38V101J | RESISTOR ARRAY | |
| R1175 | EXB38V101J | RESISTOR ARRAY | |
| R1178 | EXB38V101J | RESISTOR ARRAY | |
| R1179 | EXB38V101J | RESISTOR ARRAY | |
| R1185 | EXB38V220J | RESISTOR ARRAY | |
| R1186 | ERJ6ENF1001 | M 1KOHM, 1/10W | |
| R1187 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1188 | ERJ6ENF1001 | M 1KOHM, 1/10W | |
| R1189 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1190 | ERJ6ENF75R0 | M 75 OHM, 1/10W | |
| R1191 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1192 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1193 | EXB38V560J | RESISTOR ARRAY | |
| R1194 | EXB38V560J | RESISTOR ARRAY | |
| R1195 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1196 | EXB38V560J | RESISTOR ARRAY | |
| R1198 | EXB38V560J | RESISTOR ARRAY | |
| R1199 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1200 | EXB38V560J | RESISTOR ARRAY | |
| R1201 | ERJ3GEYJ122 | M 1.2KOHM,J,1/16W | |
| R1203 | EXB38V560J | RESISTOR ARRAY | |
| R1204 | ERJ3GEYJ180 | M 18 OHM,J,1/16W | |
| R1206 | EXB38V560J | RESISTOR ARRAY | |
| R1207 | ERJ3GEYJ180 | M 18 OHM,J,1/16W | |
| R1208 | ERJ3GEYJ180 | M 18 OHM,J,1/16W | |
| R1209 | EXB38V560J | RESISTOR ARRAY | |
| R1211 | ERJ3GEYJ681 | M 680 OHM,J,1/16W | |
| R1212 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1217 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1219 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| R1220 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1221 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1224 | ERJ3GEYJ152 | M 1.5KOHM,J,1/16W | |
| R1225 | ERJ3GEYJ391 | M 390 OHM,J,1/16W | D0GB391JA002 |
| R1235 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1236 | ERJ3GEYJ822 | M 8.2KOHM,J,1/16W | |
| R1238 | ERJ3GEYJ473 | M 47K OHM,J,1/16W | |
| R1239 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1240 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1241 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1247 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1248 | ERJ3GEYJ272 | M 2.7KOHMJ,J1/16W | |
| R1249 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1250 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1254 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1255 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1256 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1257 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1259 | ERJ3GEYJ221 | M 220 OHM,J,1/16W | |
| R1262 | ERJ3GEYJ272 | M 2.7KOHMJ,J1/16W | |
| R1264 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1265 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1269 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1270 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1272 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1273 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1274 | EXB38V103J | RESISTOR ARRAY | |
| R1280 | ERJ6ENF75R0 | M 75 OHM, 1/10W | |
| R1284 | EXB38V103J | RESISTOR ARRAY | |
| R1288 | EXB38V103J | RESISTOR ARRAY | |
| R1291 | EXB38V103J | RESISTOR ARRAY | |
| R1293 | EXB38V103J | RESISTOR ARRAY | |
| R1296 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1302 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1303 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1304 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1305 | ERJ3GEYJ102 | M 1K OHM,J,1/16W | |
| R1310 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1312 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R1316 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1318 | ERJ3GEYJ152 | M 1.5KOHM,J,1/16W | |
| R1319 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R1324 | ERJ3GEYJ562 | M 5.6KOHM,J,1/16W | |
| R1327 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1328 | ERJ6GEYJ560 | M 56 OHM,J,1/10W | |
| R1329 | ERJ3GEYJ562 | M 5.6KOHM,J,1/16W | |
| R1331 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1332 | ERJ6GEYJ560 | M 56 OHM,J,1/10W | |
| R1333 | ERJ3GEYJ562 | M 5.6KOHM,J,1/16W | |
| R1335 | ERJ6GEYJ560 | M 56 OHM,J,1/10W | |
| R1336 | ERJ3GEYJ102 | M 1K OHM,J,1/16W | |
| R1352 | ERJ3GEYJ102 | M 1K OHM,J,1/16W | |
| R1353 | ERJ6ENF2202 | M 2.2KOHM, 1/10W | |
| R1355 | ERJ6ENF2202 | M 2.2KOHM, 1/10W | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| R1356 | ERJ3GEYJ102 | M 1K OHM,J,1/16W | |
| R1358 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1359 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R1360 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R1361 | EXB38V102J | RESISTOR ARRAY | |
| R1362 | EXB38V220J | RESISTOR ARRAY | |
| R1363 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1372 | ERJ3GEYJ102 | M 1K OHM,J,1/16W | |
| R1373 | ERJ3GEYJ102 | M 1K OHM,J,1/16W | |
| R1375 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R1381 | ERJ3GEYJ102 | M 1K OHM,J,1/16W | |
| R1384 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1387 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1388 | ERJ3GEYJ562 | M 5.6KOHM,J,1/16W | |
| R1389 | ERJ3GEYJ223 | M 22K OHM,J,1/16W | |
| R1390 | ERJ3GEYJ223 | M 22K OHM,J,1/16W | |
| R1391 | ERJ3GEYJ183 | M 18K OHM,J,1/16W | |
| R1392 | ERJ3GEYJ154 | M 150KOHM,J,1/16W | |
| R1393 | ERJ3GEYJ473 | M 47K OHM,J,1/16W | |
| R1394 | ERJ3GEYJ223 | M 22K OHM,J,1/16W | |
| R1395 | ERJ3GEYJ223 | M 22K OHM,J,1/16W | |
| R1396 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1397 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1399 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1400 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R1401 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R1402 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1406 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R1407 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1408 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1409 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1410 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1411 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1412 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1413 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1414 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1415 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1416 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1417 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1418 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1419 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1420 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1421 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1422 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1423 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1424 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1425 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1426 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1427 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1428 | ERJ6GEYJ332 | M 3.3KOHM,J,1/10W | |
| R1429 | ERJ6GEYJ332 | M 3.3KOHM,J,1/10W | |
| R1430 | ERJ6GEYJ332 | M 3.3KOHM,J,1/10W | |
| R1431 | ERJ6GEYJ332 | M 3.3KOHM,J,1/10W | |
| R1432 | ERJ6GEYJ332 | M 3.3KOHM,J,1/10W | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| R1433 | ERJ6GEYJ332 | M 3.3KOHM,J,1/10W | |
| R1434 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1435 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1436 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1437 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1438 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1439 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1440 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1441 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1442 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1443 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1444 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1445 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1446 | ERJ6GEYJ3R3 | M 3.3OHM,J,1/10W | |
| R1447 | ERJ6GEYJ3R3 | M 3.3OHM,J,1/10W | |
| R1448 | ERJ6GEYJ3R3 | M 3.3OHM,J,1/10W | |
| R1449 | ERJ6GEYJ3R3 | M 3.3OHM,J,1/10W | |
| R1450 | ERJ6GEYJ3R3 | M 3.3OHM,J,1/10W | |
| R1451 | ERJ6GEYJ3R3 | M 3.3OHM,J,1/10W | |
| R1452 | ERJ6GEYJ3R3 | M 3.3OHM,J,1/10W | |
| R1453 | ERJ6GEYJ3R3 | M 3.3OHM,J,1/10W | |
| R1454 | ERJ6GEYJ3R3 | M 3.3OHM,J,1/10W | |
| R1455 | ERJ6GEYJ3R3 | M 3.3OHM,J,1/10W | |
| R1456 | ERJ6GEYJ3R3 | M 3.3OHM,J,1/10W | |
| R1457 | ERJ6GEYJ3R3 | M 3.3OHM,J,1/10W | |
| R1458 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1459 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1460 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1461 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1462 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1463 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1464 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1465 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1466 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1467 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1468 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1469 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1470 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1471 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1472 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1473 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1474 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1475 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1476 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1477 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1478 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1479 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1480 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1481 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1482 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1483 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1484 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1485 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1486 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| R1487 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1488 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1489 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1490 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1492 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1493 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1494 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1495 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1496 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1497 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1498 | ERJ3GEYJ562 | M 5.6KOHM,J,1/16W | |
| R1500 | ERJ3GEYJ222 | M 2.2KOHM,J,1/16W | |
| R1501 | ERJ3GEYJ681 | M 680 OHM,J,1/16W | |
| R1502 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R1504 | ERJ3GEYJ332 | M 3.3KOHM,J,1/16W | |
| R1505 | ERJ3GEYJ682 | M 6.8KOHM,J,1/16W | |
| R1510 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1511 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1515 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1516 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1519 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1531 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1552 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1554 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1555 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1558 | ERJ3GEYJ473 | M 47K OHM,J,1/16W | |
| R1560 | ERJ3GEYJ102 | M 1K OHM,J,1/16W | |
| R1561 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R1571 | ERJ3GEYJ560 | M 56 OHM,J,1/16W | |
| R1572 | ERJ3GEYJ560 | M 56 OHM,J,1/16W | |
| R1573 | ERJ3GEYJ560 | M 56 OHM,J,1/16W | |
| R1574 | ERJ3GEYJ560 | M 56 OHM,J,1/16W | |
| R1700 | EXB38V220J | RESISTOR ARRAY | |
| R1701 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1702 | ERJ3GEYJ471 | M 470 OHM,J,1/16W | |
| R1704 | EXB38V220J | RESISTOR ARRAY | |
| R1705 | EXB38V220J | RESISTOR ARRAY | |
| R1706 | EXB38V220J | RESISTOR ARRAY | |
| R1707 | EXB38V220J | RESISTOR ARRAY | |
| R1708 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R1709 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1710 | EXB38V220J | RESISTOR ARRAY | |
| R1711 | EXB38V220J | RESISTOR ARRAY | |
| R1712 | EXB38V220J | RESISTOR ARRAY | |
| R1713 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1714 | ERJ3GEYJ331 | M 330 OHM,J,1/16W | |
| R1715 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1716 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1717 | EXB38V220J | RESISTOR ARRAY | |
| R1718 | ERJ3GEYJ681 | M 680 OHM,J,1/16W | |
| R1719 | ERJ3GEYJ560 | M 56 OHM,J,1/16W | |
| R1720 | EXB38V220J | RESISTOR ARRAY | |
| R1721 | EXB38V220J | RESISTOR ARRAY | |
| R1722 | EXB38V220J | RESISTOR ARRAY | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| R1723 | EXB38V220J | RESISTOR ARRAY | |
| R1724 | EXB38V220J | RESISTOR ARRAY | |
| R1725 | EXB38V220J | RESISTOR ARRAY | |
| R1726 | EXB38V220J | RESISTOR ARRAY | |
| R1727 | EXB38V220J | RESISTOR ARRAY | |
| R1728 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1729 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R1730 | EXB38V220J | RESISTOR ARRAY | |
| R1731 | EXB38V220J | RESISTOR ARRAY | |
| R1732 | EXB38V220J | RESISTOR ARRAY | |
| R1733 | EXB38V220J | RESISTOR ARRAY | |
| R1734 | ERJ3GEYJ560 | M 56 OHM,J,1/16W | |
| R1735 | ERJ3GEYJ560 | M 56 OHM,J,1/16W | |
| R1736 | ERJ6ENF1001 | M 1KOHM, 1/10W | |
| R1738 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1739 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1743 | ERJ3GEYJ331 | M 330 OHM,J,1/16W | |
| R1744 | EXB38V102J | RESISTOR ARRAY | |
| R1801 | EXB38V220J | RESISTOR ARRAY | |
| R1802 | EXB38V220J | RESISTOR ARRAY | |
| R1803 | EXB38V220J | RESISTOR ARRAY | |
| R1804 | EXB38V220J | RESISTOR ARRAY | |
| R1805 | EXB38V220J | RESISTOR ARRAY | |
| R1808 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R1809 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R1817 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R1821 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1822 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R1823 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R1837 | ERJ6ENF1001 | M 1KOHM, 1/10W | |
| R1867 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R1868 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R2002 | ERJ6ENF5601 | M 5.6KOHM, 1/10W | |
| R2003 | ERJ6ENF1501 | M 1.5KOHM, 1/10W | |
| R2004 | ERJ6ENF1501 | M 1.5KOHM, 1/10W | |
| R2005 | ERJ6ENF2701 | M 2.7KOHM, 1/10W | |
| R2006 | ERJ6ENF6801 | M 6.8KOHM, 1/10W | |
| R2007 | ERJ6ENF3302 | M 33KOHM, 1/10W | |
| R2008 | ERJ6ENF5601 | M 5.6KOHM, 1/10W | |
| R2009 | ERJ6ENF1001 | M 1KOHM, 1/10W | |
| R2010 | ERJ6ENF1801 | M 1.8KOHM, 1/10W | |
| R2011 | ERJ6ENF2701 | M 2.7KOHM, 1/10W | |
| R2012 | ERJ6ENF6801 | M 6.8KOHM, 1/10W | |
| R2013 | ERJ6ENF3302 | M 33KOHM, 1/10W | |
| R2014 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R2015 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R2016 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R2017 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R2019 | ERJ3GEYJ331 | M 330 OHM,J,1/16W | |
| R2020 | ERJ3GEYJ331 | M 330 OHM,J,1/16W | |
| R2022 | ERJ3GEYJ331 | M 330 OHM,J,1/16W | |
| R2023 | ERJ3GEYJ331 | M 330 OHM,J,1/16W | |
| R2026 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R2028 | ERJ3GEYJ100 | M 10 OHM,J,1/16W | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| R2029 | ERJ3GEYJ100 | M 10 OHM,J,1/16W | |
| R3003 | ERJ3GEYJ330 | M 33 OHM,J,1/16W | |
| R3004 | ERJ6GEYJ470 | M 47 OHM,J,1/10W | |
| R3401 | ERJ6GEYJ750 | M 75 OHM,J,1/10W | PT-AE200E |
| R3402 | ERJ6GEYJ750 | M 75 OHM,J,1/10W | PT-AE200E |
| R3403 | ERJ6ENF75R0 | M 75 OHM, 1/10W | PT-AE200E |
| R3404 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | PT-AE200E |
| R3405 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | PT-AE200E |
| R3407 | ERJ3GEYJ223 | M 22K OHM,J,1/16W | PT-AE200E |
| R3408 | ERJ3GEYJ223 | M 22K OHM,J,1/16W | PT-AE200E |
| R3409 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | PT-AE200E |
| R3410 | ERJ3GEYJ562 | M 5.6KOHM,J,1/16W | PT-AE200E |
| R3411 | ERJ3GEYJ183 | M 18K OHM,J,1/16W | PT-AE200E |
| R3412 | ERJ3GEYJ560 | M 56 OHM,J,1/16W | PT-AE200E |
| R3413 | ERJ3GEYJ471 | M 470 OHM,J,1/16W | PT-AE200E |
| R3414 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | PT-AE200E |
| R3415 | ERJ3GEYJ471 | M 470 OHM,J,1/16W | PT-AE200E |
| R3417 | ERJ3GEYJ471 | M 470 OHM,J,1/16W | PT-AE200E |
| R3418 | ERJ6ENF75R0 | M 75 OHM, 1/10W | PT-AE200E |
| R3419 | ERJ6ENF75R0 | M 75 OHM, 1/10W | PT-AE200E |
| R3420 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | PT-AE200E |
| R3421 | ERJ3GEYJ562 | M 5.6KOHM,J,1/16W | PT-AE200E |
| R3422 | ERJ3GEYJ562 | M 5.6KOHM,J,1/16W | PT-AE200E |
| R3423 | ERJ3GEYJ562 | M 5.6KOHM,J,1/16W | PT-AE200E |
| R3424 | ERJ3GEYJ560 | M 56 OHM,J,1/16W | PT-AE200E |
| R3425 | ERJ3GEYJ560 | M 56 OHM,J,1/16W | PT-AE200E |
| R3426 | ERJ3GEYJ471 | M 470 OHM,J,1/16W | PT-AE200E |
| R3427 | ERJ3GEYJ560 | M 56 OHM,J,1/16W | PT-AE200E |
| R5002 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R5003 | ERJ3GEYJ101 | M 100 OHM,J,1/16W | D0GB101JA002 |
| R5004 | ERJ3GEYJ473 | M 47K OHM,J,1/16W | |
| R5005 | ERJ3GEYJ473 | M 47K OHM,J,1/16W | |
| R5006 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5007 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5008 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5009 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5011 | EXB38V103J | RESISTOR ARRAY | |
| R5013 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5014 | EXB38VR000 | RESISTOR ARRAY | |
| R5015 | EXB38VR000 | RESISTOR ARRAY | |
| R5016 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R5018 | EXB38VR000 | RESISTOR ARRAY | |
| R5019 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5020 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5021 | EXB38VR000 | RESISTOR ARRAY | |
| R5022 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5023 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5024 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5025 | EXB38VR000 | RESISTOR ARRAY | |
| R5026 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5027 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5028 | ERJ3GEYJ563 | M 56KOHM,J,1/16W | |
| R5029 | ERJ3GEYJ563 | M 56KOHM,J,1/16W | |
| R5030 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| R5031 | EXB38VR000 | RESISTOR ARRAY | |
| R5032 | EXB38VR000 | RESISTOR ARRAY | |
| R5033 | EXB38VR000 | RESISTOR ARRAY | |
| R5034 | ERJ3GEYJ563 | M 56KOHM,J,1/16W | |
| R5035 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5036 | ERJ3GEYJ563 | M 56KOHM,J,1/16W | |
| R5037 | ERJ3GEYJ563 | M 56KOHM,J,1/16W | |
| R5039 | ERJ3GEYJ153 | M 15K OHM,J,1/16W | |
| R5040 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5041 | ERJ3GEYJ563 | M 56KOHM,J,1/16W | |
| R5043 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R5044 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R5045 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R5046 | ERJ3GEYJ105 | M 1M OHM,J,1/16W | |
| R5047 | ERJ3GEYJ105 | M 1M OHM,J,1/16W | |
| R5048 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5050 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5051 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5052 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R5053 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5054 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5055 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R5056 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5057 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5058 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5059 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5060 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5061 | ERJ3GEYJ472 | M 4.7KOHM,J,1/16W | |
| R5062 | ERJ3GEYJ563 | M 56KOHM,J,1/16W | |
| R5063 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5064 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R5065 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5066 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5068 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5069 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5070 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5071 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5072 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R5074 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5075 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5076 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5077 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5078 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5079 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5080 | EXB38V220J | RESISTOR ARRAY | |
| R5081 | EXB38V220J | RESISTOR ARRAY | |
| R5082 | EXB38V220J | RESISTOR ARRAY | |
| R5083 | EXB38V220J | RESISTOR ARRAY | |
| R5084 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R5085 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R5087 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5088 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R5089 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R5090 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| R5091 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R5092 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R5093 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R5094 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R5095 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R5096 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R5097 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R5098 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R5099 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R5100 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R5101 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5102 | ERJ3GEYJ270 | M 27 OHM,J,1/16W | |
| R5103 | ERJ3GEYJ270 | M 27 OHM,J,1/16W | |
| R5104 | ERJ3GEYJ152 | M 1.5KOHM,J,1/16W | |
| R5105 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R5106 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R5107 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R5108 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R5109 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R5110 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R5111 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R5114 | ERJ3GEYJ102 | M 1K OHM,J,1/16W | |
| R5115 | ERJ3GEYJ105 | M 1M OHM,J,1/16W | |
| R5116 | ERJ3GEYJ105 | M 1M OHM,J,1/16W | |
| R5117 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5118 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| R5119 | ERJ3GEYJ103 | M 10K OHM,J,1/16W | |
| R5120 | ERJ3GEYJ220 | M 22 OHM,J,1/16W | |
| R9101 | ERC12GK105 | S 1MOHM, K,1/2W | ⚠ |
| R9102 | ERC12GK825 | S 8.2MOHM, K,1/2W | ⚠ |
| R9762 | ERJ3GEYJ100 | M 10 OHM,J,1/16W | |
| | | | |
| [CAPACITORS] | | | |
| | | | |
| C1001 | ECJ1XB1C103K | C 0.01UF, K, 16V | |
| C1002 | EEVHB0J330 | E 33UF, 6.3V | |
| C1003 | ECJ2XF1C105Z | C 1UF, Z, 16V | |
| C1004 | ECJ1XB1C103K | C 0.01UF, K, 16V | |
| C1005 | EEVHB0J330 | E 33UF, 6.3V | |
| C1006 | ECJ1XB1C103K | C 0.01UF, K, 16V | |
| C1007 | EEVHB0J330 | E 33UF, 6.3V | |
| C1008 | ECJ1XB1C103K | C 0.01UF, K, 16V | |
| C1009 | ECJ1XB1C103K | C 0.01UF, K, 16V | |
| C1010 | ECJ1XC1H102J | C 1000PF, J, 50V | |
| C1011 | EEVHB0J330 | E 33UF, 6.3V | |
| C1012 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1013 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1014 | ECJ1XF1A105Z | C 100UF, 10V | |
| C1015 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1016 | ECJ1XB1C103K | C 0.01UF, K, 16V | |
| C1017 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1020 | EEVHB0J330 | E 33UF, 6.3V | |
| C1023 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1025 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |

| | | | |
|---|---|---|---|
| [illegible] | [illegible] | [illegible] | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| C1026 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1027 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1028 | EEVHB1C101 | E 100UF, 16V | |
| C1029 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1030 | ECJ2XF1C474Z | C 0.47UF, Z, 16V | |
| C1031 | ECJ2XF1C474Z | C 0.47UF, Z, 16V | |
| C1032 | ECJ2XF1C225Z | C 2.2UF, Z, 16V | |
| C1033 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1034 | ECJ1XB1C103K | C 0.01UF, K, 16V | |
| C1035 | ECJ1XC1H100C | C 10PF, 50V | |
| C1036 | ECJ1XB1C103K | C 0.01UF, K, 16V | |
| C1037 | ECUV1C223KBV | C 0.22UF, K, 16V | ECJ1VB1C223K |
| C1039 | ECJ3XB0J106M | C 10UF, 6.3V | |
| C1040 | ECJ3XB0J106M | C 10UF, 6.3V | |
| C1041 | ECJ3XB0J106M | C 10UF, 6.3V | |
| C1043 | ECJ1XB1C103K | C 0.01UF, K, 16V | |
| C1044 | ECJ1XB1C103K | C 0.01UF, K, 16V | |
| C1045 | ECJ1XB1C103K | C 0.01UF, K, 16V | |
| C1046 | ECJ1XB1C103K | C 0.01UF, K, 16V | |
| C1047 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1048 | ECUX1H120JCV | C 12PF, 50V | |
| C1049 | ECUX1H120JCV | C 12PF, 50V | |
| C1050 | ECUX1H270JCV | C 27PF, 50V | |
| C1051 | ECJ1XC1H220J | C 22PF, J, 50V | |
| C1052 | ECJ1XC1H220J | C 22PF, J, 50V | |
| C1053 | ECJ1XF1A105Z | C 100UF, 10V | |
| C1055 | ECJ1XC1H102J | C 1000PF, J, 50V | |
| C1056 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1057 | EEVHB1C470 | E 47UF, 16V | |
| C1058 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1059 | ECJ1XB1C103K | C 0.01UF, K, 16V | |
| C1060 | ECJ1XC1H681J | C 680PF, 50V | |
| C1061 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1062 | ECJ1XB1C103K | C 0.01UF, K, 16V | |
| C1063 | ECJ1XB1C103K | C 0.01UF, K, 16V | |
| C1064 | ECJ1XF1A105Z | C 100UF, 10V | |
| C1065 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1066 | ECJ3XB0J106M | C 10UF, 6.3V | |
| C1067 | EEVHB0J101 | E 100UF, 6.3V | EEVHB0J101P |
| C1068 | ECJ3XF1C475Z | C 4.7UF, Z, 16V | |
| C1069 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1070 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1071 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1073 | ECJ2XF1C225Z | C 2.2UF, Z, 16V | |
| C1074 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1075 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1076 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1077 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1078 | EEVHB1C470 | E 47UF, 16V | |
| C1079 | ECJ1XC1H102J | C 1000PF, J, 50V | |
| C1080 | EEVHP1C100 | E 10UF, 16V | |
| C1081 | EEVHP1C100 | E 10UF, 16V | |
| C1082 | EEVHB0J101 | E 100UF, 6.3V | EEVHB0J101P |
| C1083 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| C1084 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1085 | EEVHB0J101 | E 100UF, 6.3V | EEVHB0J101P |
| C1086 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1087 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1088 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1089 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1090 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1091 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1092 | EEVHB0J101 | E 100UF, 6.3V | EEVHB0J101P |
| C1093 | EEVHB1C100 | E 10UF, 16V | |
| C1094 | EEVHB0J101 | E 100UF, 6.3V | EEVHB0J101P |
| C1095 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1096 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1097 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1098 | ECUX1H473ZFV | C 0.047UF, 50V | ECJ1XF1H473Z |
| C1099 | ECUX1H473ZFV | C 0.047UF, 50V | ECJ1XF1H473Z |
| C1100 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1101 | ECJ1XB1H102K | C 1000PF, K, 50V | |
| C1102 | ECUX1H473ZFV | C 0.047UF, 50V | ECJ1XF1H473Z |
| C1103 | ECJ1XB1H102K | C 1000PF, K, 50V | |
| C1104 | ECUX1H473ZFV | C 0.047UF, 50V | ECJ1XF1H473Z |
| C1105 | ECUX1H473ZFV | C 0.047UF, 50V | ECJ1XF1H473Z |
| C1106 | ECUX1H473ZFV | C 0.047UF, 50V | ECJ1XF1H473Z |
| C1107 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1108 | ECJ1XC1H151J | C 150PF, 50V | |
| C1109 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1112 | ECJ2XF1C105Z | C 1UF, Z, 16V | |
| C1113 | ECUX1H120JCV | C 12PF, 50V | |
| C1114 | ECJ1XB1C103K | C 0.01UF, K, 16V | |
| C1115 | ECJ2XB1H472K | C 2700PF, K, 50V | |
| C1116 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1118 | ECJ3XF1C475Z | C 4.7UF, Z, 16V | |
| C1119 | ECJ3XF1C475Z | C 4.7UF, Z, 16V | |
| C1120 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1121 | ECJ3XF1C475Z | C 4.7UF, Z, 16V | |
| C1122 | ECUX1H392KBV | C 3900PF, K, 50V | |
| C1123 | ECJ1XB1C393K | C 0.39UF, K, 16V | |
| C1124 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1126 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1127 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1128 | ECJ2XC1H391J | C 390PF, J, 50V | |
| C1129 | ECJ1XF1A105Z | C 100UF, 10V | |
| C1130 | ECJ3XF1C475Z | C 4.7UF, Z, 16V | |
| C1131 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1132 | ECJ1XC1H181J | C 180PF, J, 50V | |
| C1133 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1134 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1135 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1136 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1137 | ECJ1XB1C103K | C 0.01UF, K, 16V | |
| C1138 | ECJ3XF1C475Z | C 4.7UF, Z, 16V | |
| C1139 | EEVHB0J330 | E 33UF, 6.3V | |
| C1140 | EEVHB0J470 | E 47UF, 6.3V | |
| C1141 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| C1142 | EEVHB0J470 | E 47UF, 6.3V | |
| C1143 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1144 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1145 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1146 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1147 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1148 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1149 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1150 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1151 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1152 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1153 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1154 | EEFUD0J101R | CAPACITOR | |
| C1155 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1156 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1157 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1158 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1159 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1160 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1161 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1162 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1163 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1164 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1165 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1166 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1167 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1168 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1169 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1170 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1172 | ECJ1XF1A105Z | C 100UF, 10V | |
| C1173 | EEVHB1A101 | E 100UF, 10V | |
| C1177 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1178 | ECUX1H473ZFV | C 0.047UF, 50V | ECJ1XF1H473Z |
| C1179 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1180 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1181 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1182 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1183 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1184 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1185 | EEVHB0J330 | E 33UF, 6.3V | |
| C1186 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1187 | ECJ2XC1H471J | C 470PF, J, 50V | |
| C1188 | EEVHB0J330 | E 33UF, 6.3V | |
| C1189 | ECJ1XC1H102J | C 1000PF, J, 50V | |
| C1190 | ECJ1XC1H220J | C 22PF, J, 50V | |
| C1191 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1192 | ECJ1XC1H220J | C 22PF, J, 50V | |
| C1193 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1194 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1195 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1206 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1219 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1220 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1221 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| C1225 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1226 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1238 | EEVHB1E4R7 | E 4.7UF, 25V | |
| C1240 | EEVHB1A221 | E 220UF, 10V | |
| C1241 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1242 | EEVHB0J101 | E 100UF, 6.3V | EEVHB0J101P |
| C1243 | EEVHB0J470 | E 47UF, 6.3V | |
| C1245 | ECJ3XF1C475Z | C 4.7UF, Z, 16V | |
| C1246 | EEVHB1E4R7 | E 4.7UF, 25V | |
| C1247 | EEVHB0J101 | E 100UF, 6.3V | EEVHB0J101P |
| C1248 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1249 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1250 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1251 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1252 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1253 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1254 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1255 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1256 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1257 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1258 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1259 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1260 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1261 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1262 | ECJ2XF1C105Z | C 1UF, Z, 16V | |
| C1263 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1264 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1265 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1266 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1267 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1268 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1269 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1270 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1271 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1272 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1273 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1274 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1275 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1276 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1277 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1278 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1279 | EEVHB1E4R7 | E 4.7UF, 25V | |
| C1280 | EEVHB1E4R7 | E 4.7UF, 25V | |
| C1281 | EEVHB1E4R7 | E 4.7UF, 25V | |
| C1282 | ECJ1XF1A105Z | C 100UF, 10V | |
| C1297 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1298 | EEVHB1E330 | E 33UF, 25V | |
| C1299 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1300 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1301 | EEVHB1E330 | E 33UF, 25V | |
| C1302 | EEVHB1E330 | E 33UF, 25V | |
| C1303 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1304 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1305 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| C1306 | ECJ2XF1C105Z | C 1UF, Z, 16V | |
| C1307 | ECJ2XF1C105Z | C 1UF, Z, 16V | |
| C1308 | ECJ2XF1C105Z | C 1UF, Z, 16V | |
| C1309 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1312 | EEVHB0J330 | E 33UF, 6.3V | |
| C1320 | ECJ3XB0J106M | C 10UF, 6.3V | |
| C1321 | ECJ1XF1A105Z | C 100UF, 10V | |
| C1322 | ECJ1XF1A105Z | C 100UF, 10V | |
| C1323 | ECJ1XF1A105Z | C 100UF, 10V | |
| C1324 | ECJ1XF1A105Z | C 100UF, 10V | |
| C1325 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1326 | ECJ1XF1A105Z | C 100UF, 10V | |
| C1327 | ECJ1XF1A105Z | C 100UF, 10V | |
| C1328 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1329 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1354 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1371 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1372 | EEVHB0J101 | E 100UF, 6.3V | EEVHB0J101P |
| C1374 | EEVHB0J221 | E 220UF, 6.3V | |
| C1375 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1438 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1439 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1440 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1441 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1442 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1443 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1444 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1445 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1446 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1447 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1448 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1449 | ECJ1XF1E104Z | C 0.1UF, Z, 25V | |
| C1450 | EEVHB1E4R7 | E 4.7UF, 25V | |
| C1699 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1700 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1701 | ECJ2XF1C225Z | C 2.2UF, Z, 16V | |
| C1702 | ECJ3XF1C475Z | C 4.7UF, Z, 16V | |
| C1703 | ECJ3XF1C475Z | C 4.7UF, Z, 16V | |
| C1704 | EEVHB0J101 | E 100UF, 6.3V | EEVHB0J101P |
| C1705 | EEVHB0J101 | E 100UF, 6.3V | EEVHB0J101P |
| C1706 | EEVHB0J101 | E 100UF, 6.3V | EEVHB0J101P |
| C1707 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1708 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1709 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1710 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1712 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1713 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1715 | ECJ1XC1H221J | C 220PF, 50V | |
| C1800 | EEVHB0J470 | E 47UF, 6.3V | |
| C1801 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1802 | EEVHB0G101 | E 100UF, 4V | |
| C1803 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1804 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1805 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| C1806 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1807 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1808 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1809 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1810 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1811 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1812 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1813 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1814 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1815 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1816 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1817 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1818 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1819 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1820 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1821 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1822 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1823 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1824 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1825 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1826 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1827 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1828 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1829 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1830 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C1831 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C2001 | EEVHB0J470 | E 47UF, 6.3V | |
| C2002 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C3001 | EEFCD0J470R | E 47UF, 6.3V | |
| C3002 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C3401 | ECJ2XC1H471J | C 470PF, J, 50V | PT-AE200E |
| C3402 | EEVHB0J330 | E 33UF, 6.3V | PT-AE200E |
| C3403 | ECJ2XC1H471J | C 470PF, J, 50V | PT-AE200E |
| C3404 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | PT-AE200E |
| C3405 | ECJ1XB1C103K | C 0.01UF, K, 16V | PT-AE200E |
| C3406 | ECJ1XB1C103K | C 0.01UF, K, 16V | PT-AE200E |
| C3407 | EEVHB0J330 | E 33UF, 6.3V | PT-AE200E |
| C3408 | ECJ1XB1C103K | C 0.01UF, K, 16V | PT-AE200E |
| C3409 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | PT-AE200E |
| C3410 | EEVHB0J330 | E 33UF, 6.3V | PT-AE200E |
| C3411 | EEVHB0J330 | E 33UF, 6.3V | PT-AE200E |
| C3412 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | PT-AE200E |
| C5001 | EEVHB0J330 | E 33UF, 6.3V | |
| C5002 | EEVHB0J330 | E 33UF, 6.3V | |
| C5003 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5004 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5005 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5006 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5007 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5008 | EEVHB1C100 | E 10UF, 16V | |
| C5009 | ECJ1XB1C103K | C 0.01UF, K, 16V | |
| C5010 | EEVHB0J470 | E 47UF, 6.3V | |
| C5011 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5013 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| C5014 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5015 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5016 | EEVHB0J470 | E 47UF, 6.3V | |
| C5017 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5018 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5019 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5020 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5021 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5022 | ECJ1XC1H050C | C 5PF, 50V | |
| C5023 | ECJ1XC1H150J | C 150PF, 50V | |
| C5024 | ECJ1XC1H060C | C 6PF, 50V | |
| C5025 | ECJ1XC1H150J | C 150PF, 50V | |
| C5026 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5027 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5028 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5029 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5030 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5031 | EEVHB0J470 | E 47UF, 6.3V | |
| C5032 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5033 | EEVHB0J470 | E 47UF, 6.3V | |
| C5036 | EEVHB0J470 | E 47UF, 6.3V | |
| C5037 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5038 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5039 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5040 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5041 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C5042 | ECJ1XF1C104Z | C 0.1UF, Z, 16V | |
| C9101 | ECQU2A474MLA | P 0.47UF, M,250V | ⚠ |
| C9102 | ECQU2A224MLA | P 0.22UF, M,250V | ⚠ |
| C9103 | ECKCNA102MBB | C 1000PF, M, | ⚠ |
| C9104 | ECKCNA102MBB | C 1000PF, M, | ⚠ |
| | | | |
| [OTHERS] | | | |
| | | | |
| A1 | K1MN36B00014 | 36P CONNECTOR | |
| A2 | K1MN36B00014 | 36P CONNECTOR | |
| A3 | K1MN36B00014 | 36P CONNECTOR | |
| A4 | K1KA05B00153 | 5P CONNECTOR | |
| A6 | K1KA12B00079 | 12P CONNECTOR | |
| A8 | K1KA13B00041 | 13P CONNECTOR | |
| A15 | TJS6A8780 | 3P CONNECTOR | K1KA03B00006 |
| A16 | TJS6A8780 | 3P CONNECTOR | K1KA03B00006 |
| A17 | TJS6A8780 | 3P CONNECTOR | K1KA03B00006 |
| A18 | TJS6A8780 | 3P CONNECTOR | K1KA03B00006 |
| A19 | K1KA04B00007 | 4P CONNECTOR | |
| A20 | K1MN50B00016 | 50P CONNECTOR | |
| A21 | K1KA14B00073 | 14P CONNECTOR | |
| K1 | K1KA02A00104 | 2P CONNECTOR | |
| R1 | TJSF43703 | 3P CONNECTOR | K1KA03B00098 |
| S1 | K1KA13A00066 | 13P CONNECTOR | |
| S2 | K1KA02A00101 | 2P CONNECTOR | |
| S3 | K1KA02A00101 | 2P CONNECTOR | |
| S4 | K1KA03A00153 | 3P CONNECTOR | |

| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| SD1 | K1NA09E00029 | SD CARD SLOT | |
| SD2 | K1MN50B00012 | 50P CONNECTOR | |
| SD3 | TJSF43706 | 6P CONNECTOR | K1KA06B00096 |
| F9101-1 | TJC6320 | FUSE HOLDER,SMALL | K3GE1ZB00002 |
| F9101-2 | TJC6320 | FUSE HOLDER,SMALL | K3GE1ZB00002 |
| F9102-1 | TJC6320 | FUSE HOLDER,SMALL | K3GE1ZB00002 |
| F9102-2 | TJC6320 | FUSE HOLDER,SMALL | K3GE1ZB00002 |
| F9101 | K5D502BN0003 | FUSE | ⚠ |
| F9102 | K5D502BN0003 | FUSE | ⚠ |
| J1 | K1KA14B00073 | 14P CONNECTOR | PT-AE200E |
| JK1001 | TJSF42904 | CONNECTOR | K1CB204B0004 |
| JK1002 | K2HA304B0004 | CONNECTOR | |
| JK1003 | K2HA102B0062 | CONNECTOR | |
| JK1005 | TJSF45015 | 15P D-SUB | K1FB115B0058 |
| JK1009 | K2HA202B0025 | CONNECTOR | |
| JK3401 | K1FB121B0007 | D-TERMINAL | PT-AE200E |
| JK3402 | TJC6137 | EARTH LUG | PT-AE200E |
| JK9101 | TJC6137 | EARTH LUG | |
| JS1012 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| JS1013 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| JS1014 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| JS1015 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| JS1016 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| JS1017 | ERJ3GEY0R00 | M 0 OHM, 1/16W | |
| JS1018 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| JS1019 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| JS1020 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| JS1021 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| JS1023 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| JS1024 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| JS1025 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| JS1026 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| JS1027 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| JS1028 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| JS1029 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| JS1030 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| JS1031 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| JS1032 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| JS1033 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| JS1034 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| JS1035 | ERJ6GEY0R00 | M 0 OHM,J,1/10W | |
| N9101 | K2AH3B000020 | AC INLET | ⚠ |
| RM3001 | B3RAD0000036 | REMOTE CONTROL RECEIVER | |
| S2001 | EVQPLHA15 | SWITCH | |
| S2002 | EVQPLHA15 | SWITCH | |
| S2003 | EVQPLHA15 | SWITCH | |
| S2004 | EVQPLHA15 | SWITCH | |
| S2005 | EVQPLHA15 | SWITCH | |
| S2006 | EVQPLHA15 | SWITCH | |
| S2007 | EVQPLHA15 | SWITCH | |
| S2008 | EVQPLHA15 | SWITCH | |
| S2009 | EVQPLHA15 | SWITCH | |
| X1001 | H1A6805B0003 | CRYSTAL | |

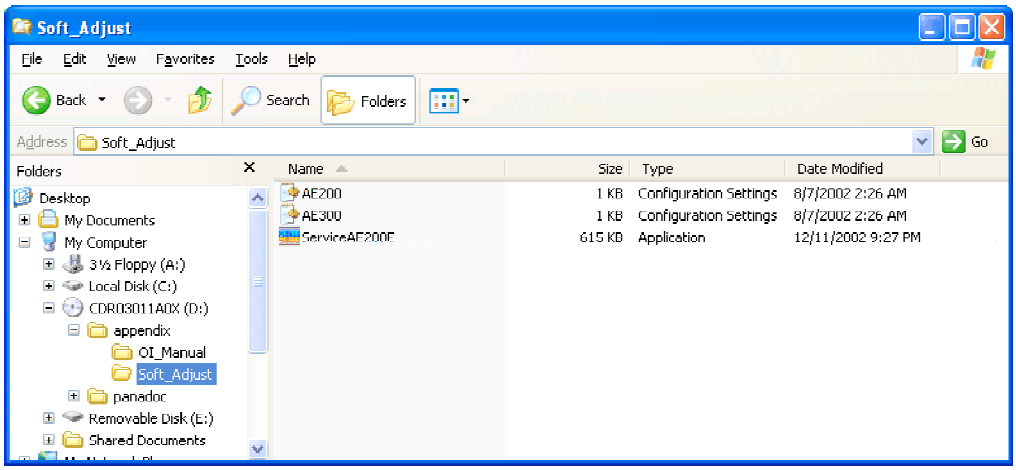
| Ref. No. | Part No. | Part Name & Description | Remarks |
|---|---|---|---|
| X1002 | H0D162500003 | CRYSTAL | |
| X1003 | H0J737400005 | CRYSTAL | |
| X5002 | H0J480500012 | CRYSTAL | |
| X5003 | H0J270500045 | CRYSTAL | |
| Z9601 | G4F3E0000001 | IGNITER | ⚠ |
| | TNPA2361AB | POWER BLOCK | |
| | TNPA2605 | CIRCUIT BOARD SD | |
| | TNPA2665 | CIRCUIT BOARD R | |
| | TNPA2666 | CIRCUIT BOARD S | |
| | TXANP01PRQZ | CIRCUIT BOARD A | |
| | TXANP03VJN9 | CIRCUIT BOARD K | PT-AE200U |
| | TXANP03PRRZ | CIRCUIT BOARD K | PT-AE200E |
| | TXANPBQVJN9 | CIRCUIT BOARD B/Q | |
| | TNPA2668 | CIRCUIT BOARD J | PT-AE200E |

# 16. Schematic Diagram for printing with A4 size

# 17. Additional Data in Appendix Folder

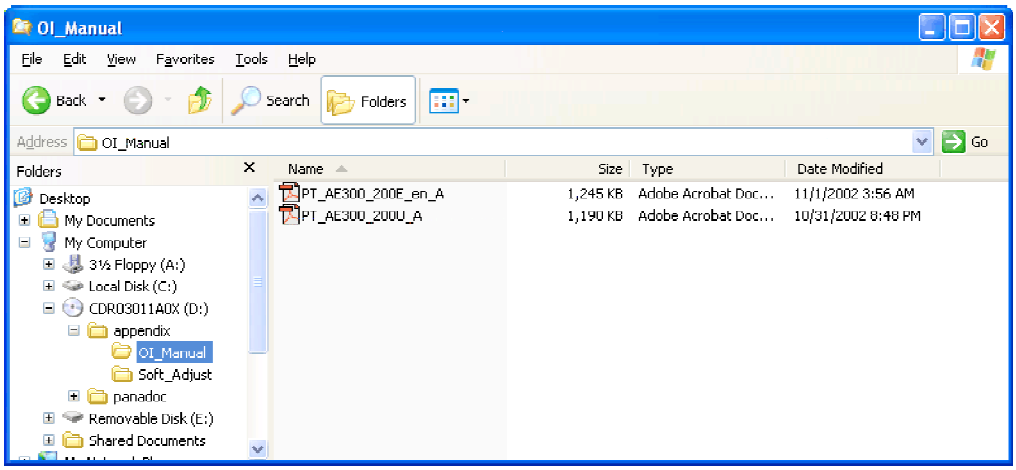
**Additional Data are inside of this CD-ROM's Appendix Folder**

## 17.1. Adjustment Software




**· Aplication's name is "ServiceAE200E.exe" and place is appendix...Soft_Adjust folder (above view) / Double Click and Run (refer to 7.5. Software for Adjustment...).**

## 17.2. Operating Instructions

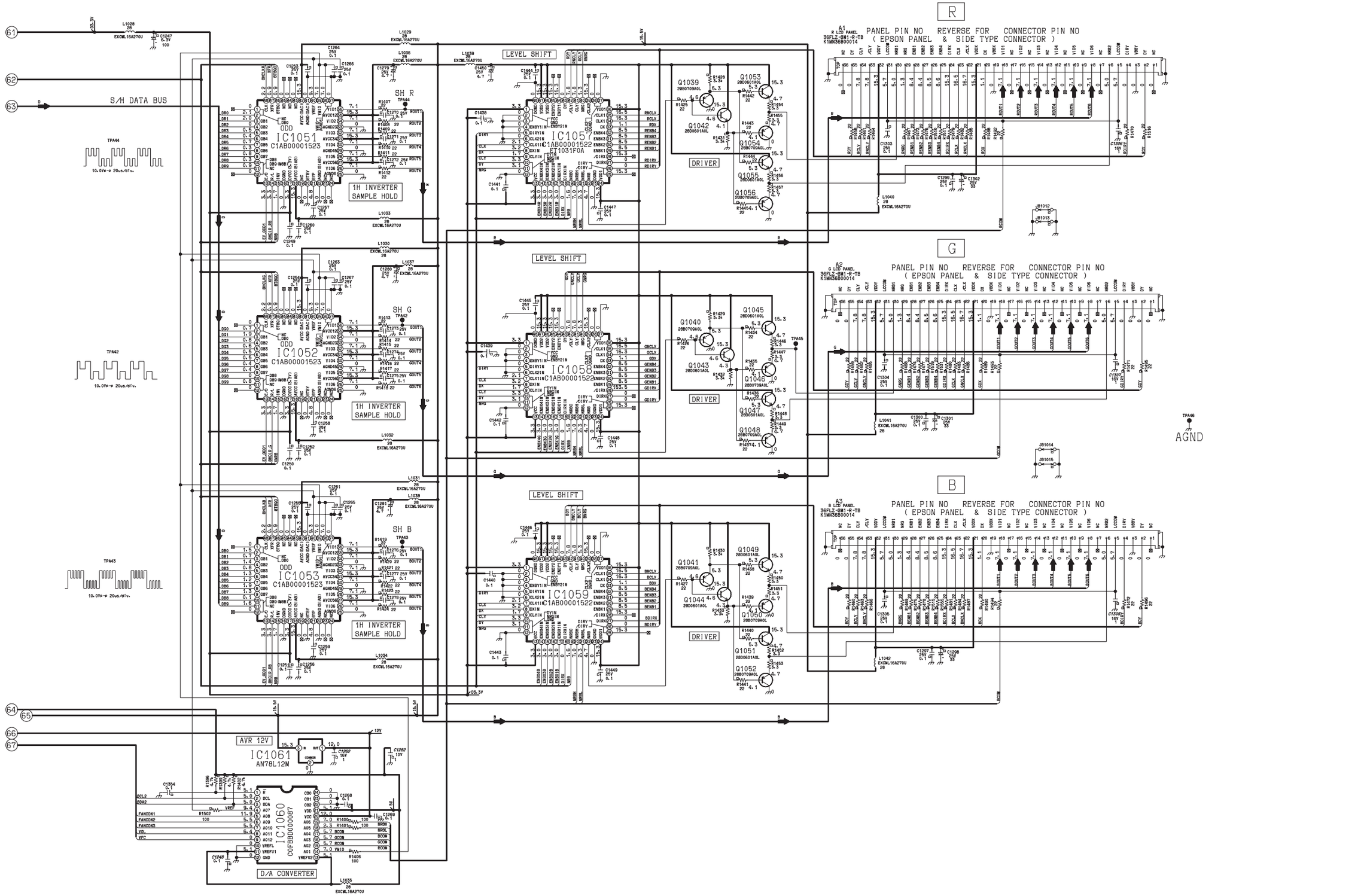



**· Operating Instructions (PDF Document) place is appendix...OI_Manual folder (above view) / Please viewing by Acrobat Reader.**

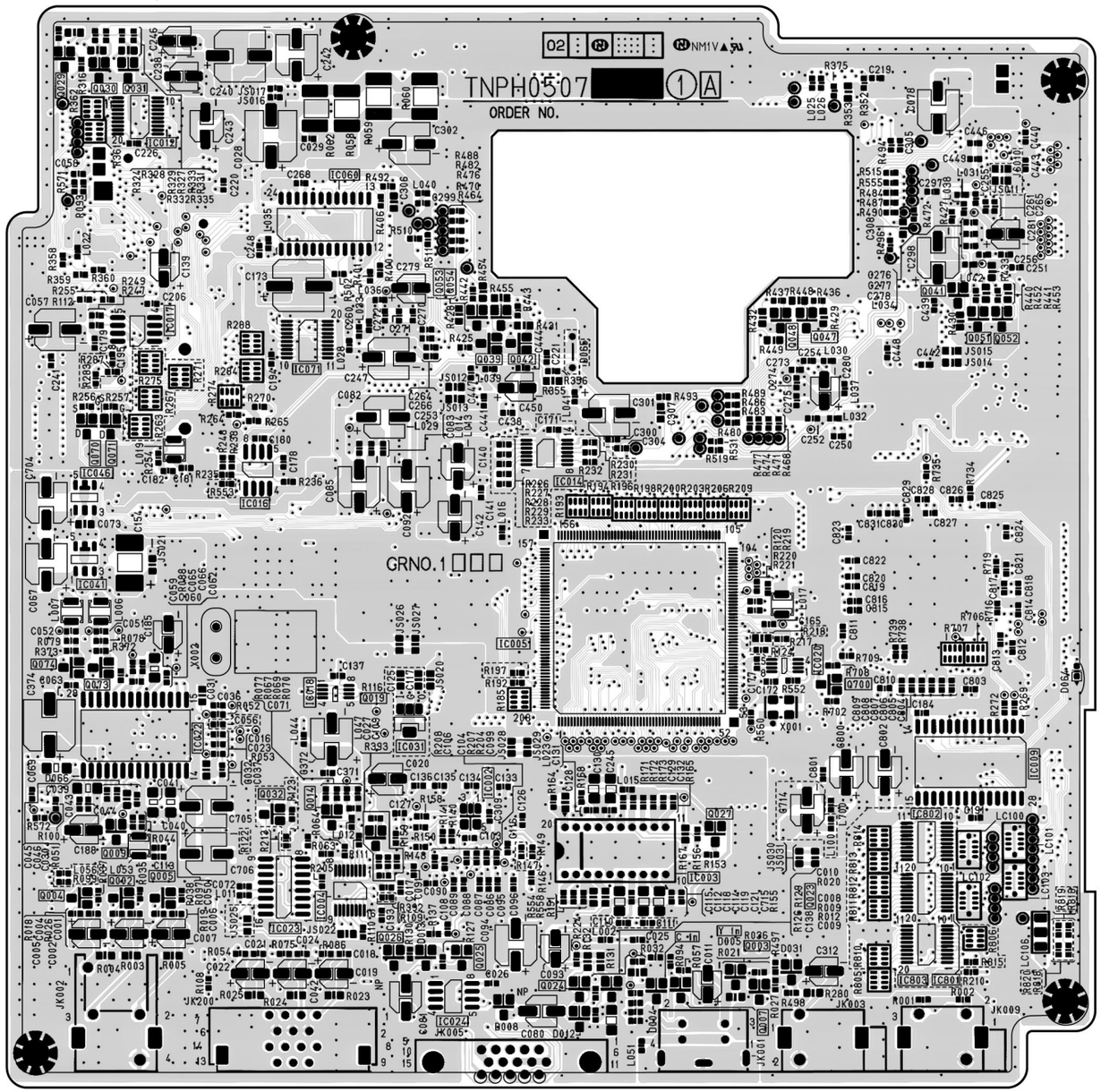
**- PT_AE300_200E_en_A.pdf.....for Europe and Other Area**

**- PT_AE300_200U_A.pdf.....for North America Area**

# A-P.C.BOARD TXANP01PRQZ (5/5)



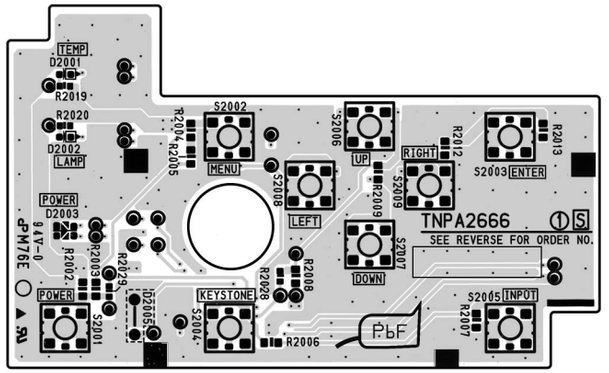
## A-P.C.Board TXANP01PRQZ (Component Side)




| A-P.C.Board (Component Side) | | | |
|---|---|---|---|
| **IC** | | | |
| IC1002 | B-3 | IC1020 | B-4 |
| IC1003 | B-3 | IC1022 | B-1 |
| IC1004 | A-2 | IC1023 | A-2 |
| IC1005 | B-3 | IC1024 | A-2 |
| IC1009 | B-5 | IC1041 | C-1 |
| IC1012 | D-1 | IC1046 | C-1 |
| IC1016 | C-2 | IC1060 | D-2 |
| IC1017 | D-1 | IC1071 | D-2 |
| IC1018 | B-2 | | |
| **TRANSISTOR** | | | |
| Q1002 | A-1 | Q1032 | B-2 |
| Q1003 | A-4 | Q1039 | D-3 |
| Q1004 | A-1 | Q1041 | D-4 |
| Q1005 | A-1 | Q1042 | D-3 |
| Q1007 | A-4 | Q1047 | D-4 |
| Q1009 | B-1 | Q1048 | D-4 |
| Q1014 | B-2 | Q1051 | D-5 |
| Q1023 | A-4 | Q1052 | D-5 |
| Q1024 | A-3 | Q1053 | D-3 |
| Q1025 | A-3 | Q1054 | D-3 |
| Q1026 | A-2 | Q1070 | C-1 |
| Q1027 | B-3 | Q1071 | C-1 |
| Q1029 | E-1 | Q1073 | B-1 |
| Q1030 | E-1 | Q1074 | B-1 |
| Q1031 | E-1 | Q1700 | B-4 |

ADDRESS INFORMATION

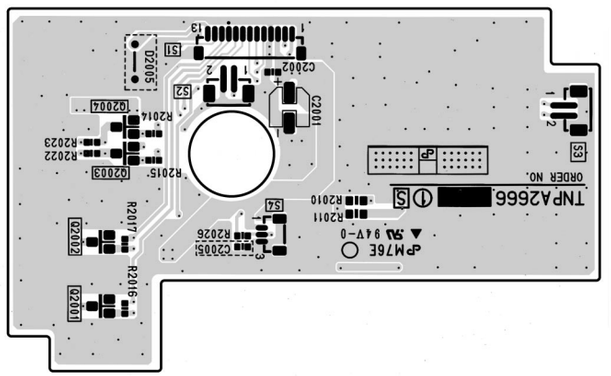
## S-P.C.Board TNPA2666 (Foil Side)



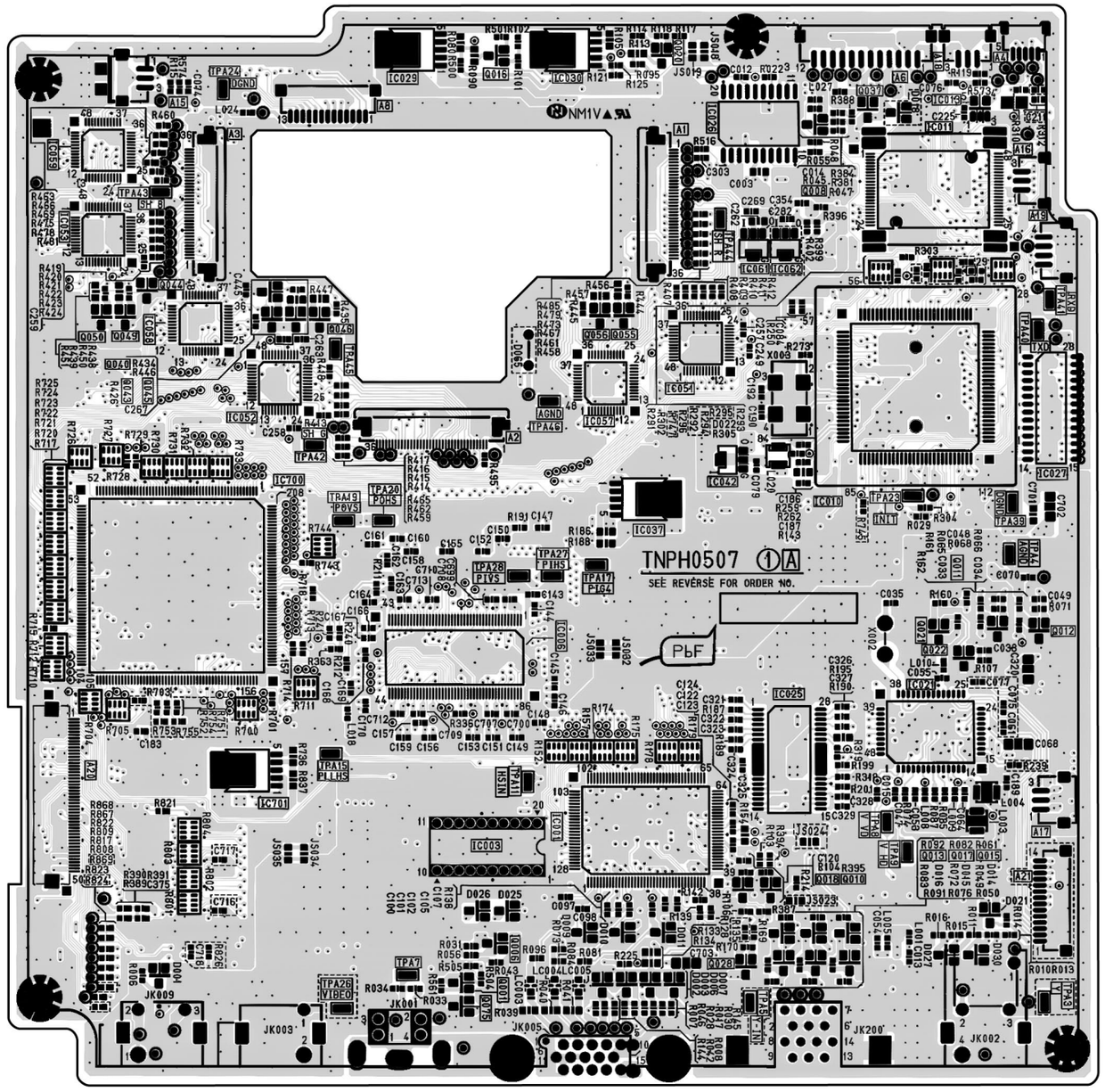

## S-P.C.Board TNPA2666 (Component Side)

| S-P.C.Board (Component Side) | | | |
|---|---|---|---|
| **TRANSISTOR** | | | |
| Q2001 | B-7 | Q2003 | B-7 |
| Q2002 | B-7 | Q2004 | B-7 |

ADDRESS INFORMATION



## A-P.C.Board TXANP01PRQZ (Foil Side)



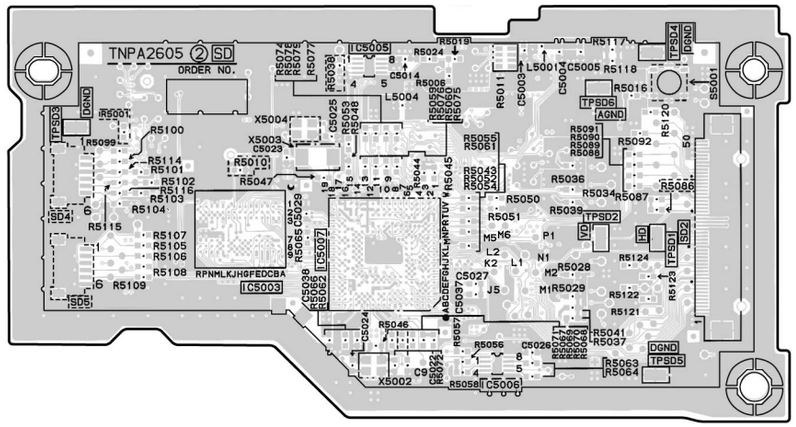

| A-P.C.Board (Foil Side) | | | |
|---|---|---|---|
| **IC** | | | |
| IC1001 | B-3 | IC1037 | C-3 |
| IC1006 | B-3 | IC1042 | C-4 |
| IC1010 | C-4 | IC1051 | D-3 |
| IC1011 | D-4 | IC1052 | C-2 |
| IC1013 | E-4 | IC1053 | D-1 |
| IC1021 | B-4 | IC1057 | C-3 |
| IC1025 | B-4 | IC1058 | D-1 |
| IC1026 | D-4 | IC1059 | D-1 |
| IC1027 | C-5 | IC1061 | D-4 |
| IC1029 | E-2 | IC1700 | C-1 |
| IC1030 | E-3 | IC1701 | B-2 |
| **TRANSISTOR** | | | |
| Q1001 | A-3 | Q1022 | B-4 |
| Q1006 | A-3 | Q1028 | A-3 |
| Q1008 | D-4 | Q1037 | E-4 |
| Q1010 | A-4 | Q1040 | D-1 |
| Q1011 | C-4 | Q1043 | C-1 |
| Q1012 | B-5 | Q1044 | D-1 |
| Q1013 | A-4 | Q1045 | C-1 |
| Q1015 | A-4 | Q1046 | D-2 |
| Q1016 | E-3 | Q1049 | D-1 |
| Q1017 | A-4 | Q1050 | D-1 |
| Q1018 | A-4 | Q1055 | D-3 |
| Q1020 | E-3 | Q1056 | D-3 |
| Q1021 | B-4 | Q1075 | A-2 |
| **TP** | | | |
| TPA4 | C-5 | TPA27 | C-3 |
| TPA7 | A-2 | TPA28 | C-3 |
| TPA8 | B-4 | TPA39 | C-5 |
| TPA9 | B-4 | TPA40 | D-5 |
| TPA11 | B-3 | TPA41 | D-5 |
| TPA15 | B-2 | TPA42 | C-2 |
| TPA17 | C-3 | TPA43 | D-1 |
| TPA19 | C-2 | TPA44 | D-4 |
| TPA20 | C-2 | TPA45 | D-2 |
| TPA23 | C-4 | TPA48 | C-3 |
| TPA24 | E-2 | | |

ADDRESS INFORMATION

## SD-P.C.Board TNPA2605 (Foil Side)

| SD-P.C.Board (Foil Side) | | | |
|---|---|---|---|
| **IC** | | | |
| IC5003 | D-7 | IC5006 | D-8 |
| IC5005 | E-8 | IC5007 | D-8 |
| **TP** | | | |
| TPSD1 | D-9 | TPSD5 | D-9 |
| TPSD2 | D-9 | TPSD6 | E-9 |

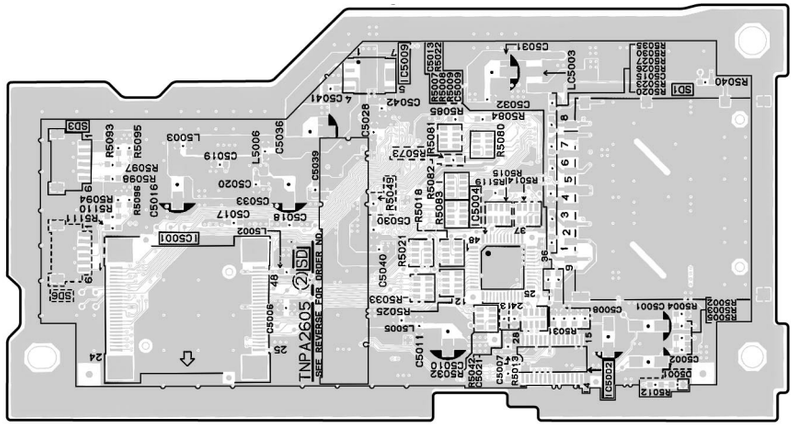
ADDRESS INFORMATION




## SD-P.C.Board TNPA2605 (Component Side)

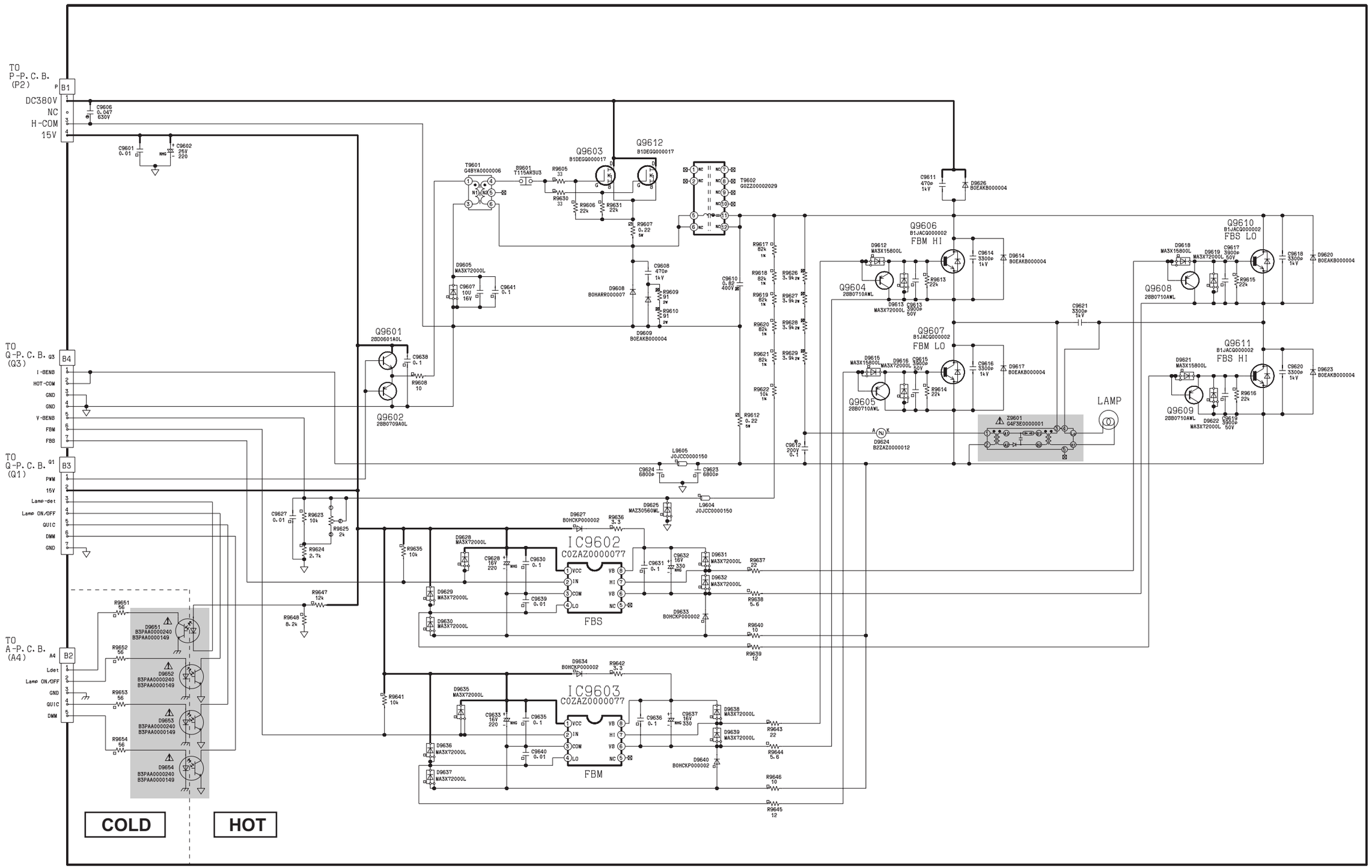
| SD-P.C.Board (Component Side) | | | |
|---|---|---|---|
| **IC** | | | |
| IC5001 | A-7 | IC5004 | A-8 |
| IC5002 | A-9 | IC5009 | B-8 |

ADDRESS INFORMATION

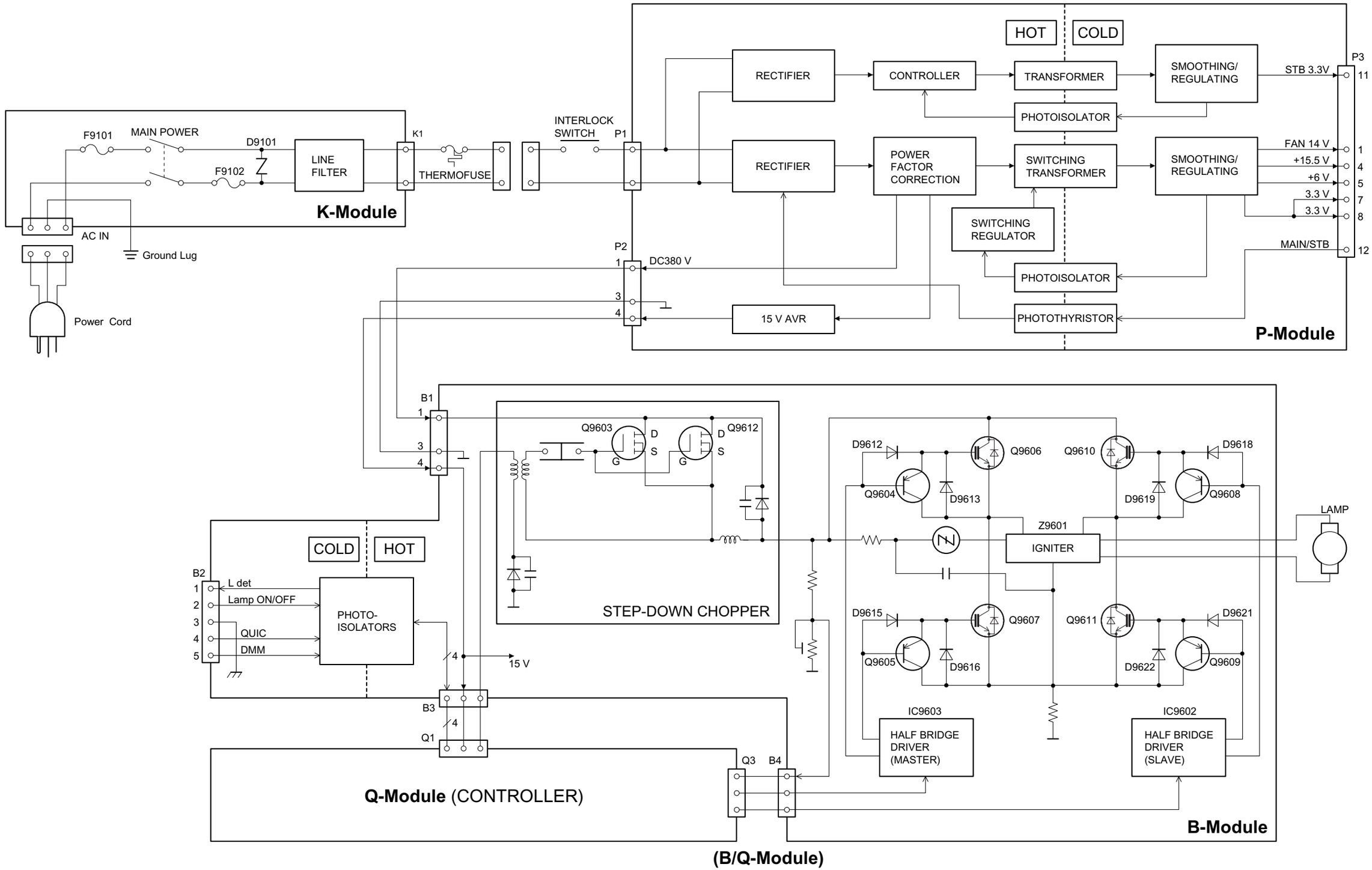


**B-Module** **TXANPBQVJN9** **Module Replacement**

**Only supplied components IC9602-3, Q9603-12, Z9601, D9612-13, D9615-16, D9618-19,D9621-22**

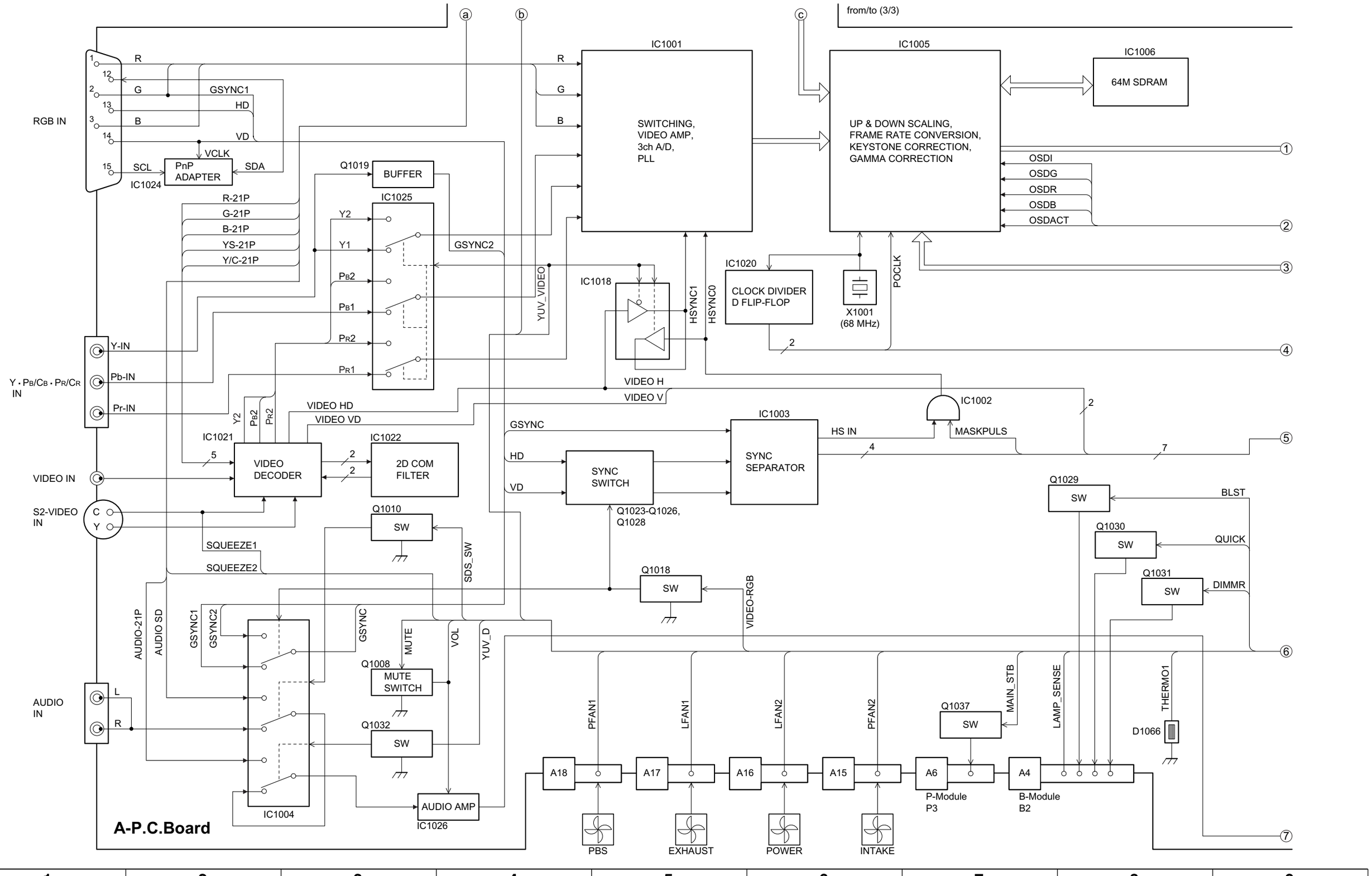


# Power Supply

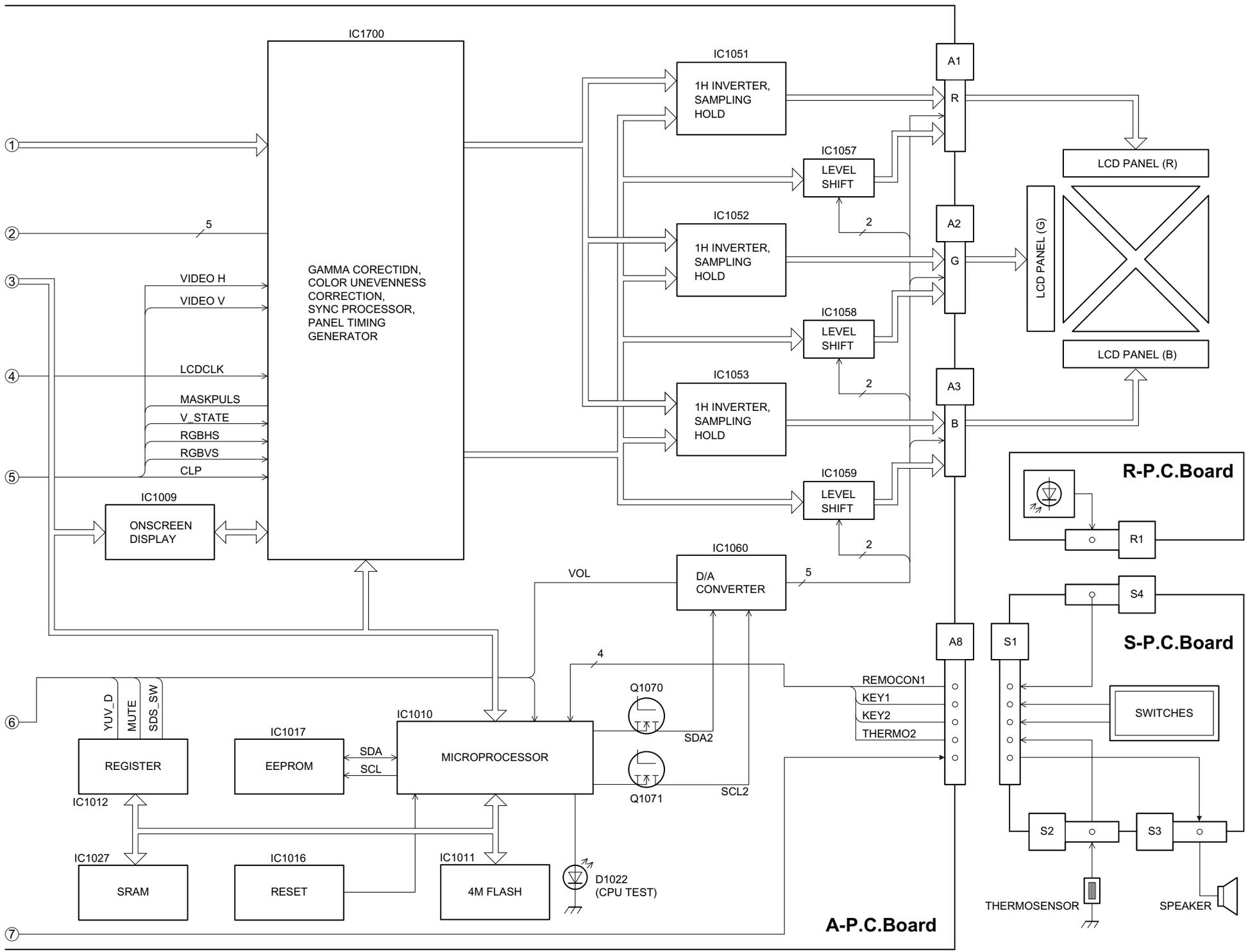



(B/Q-Module)

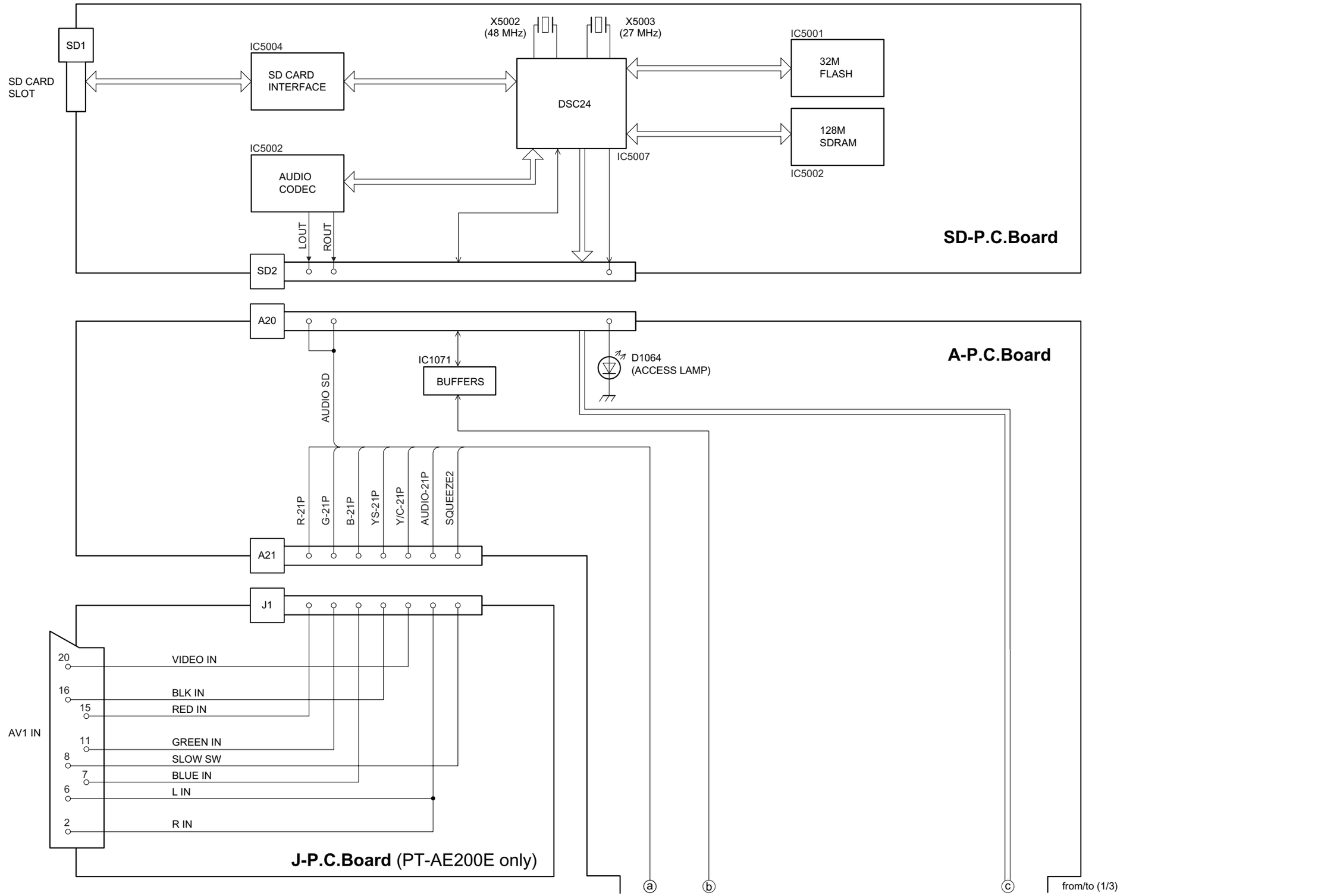
# Signal Processing (1/3)



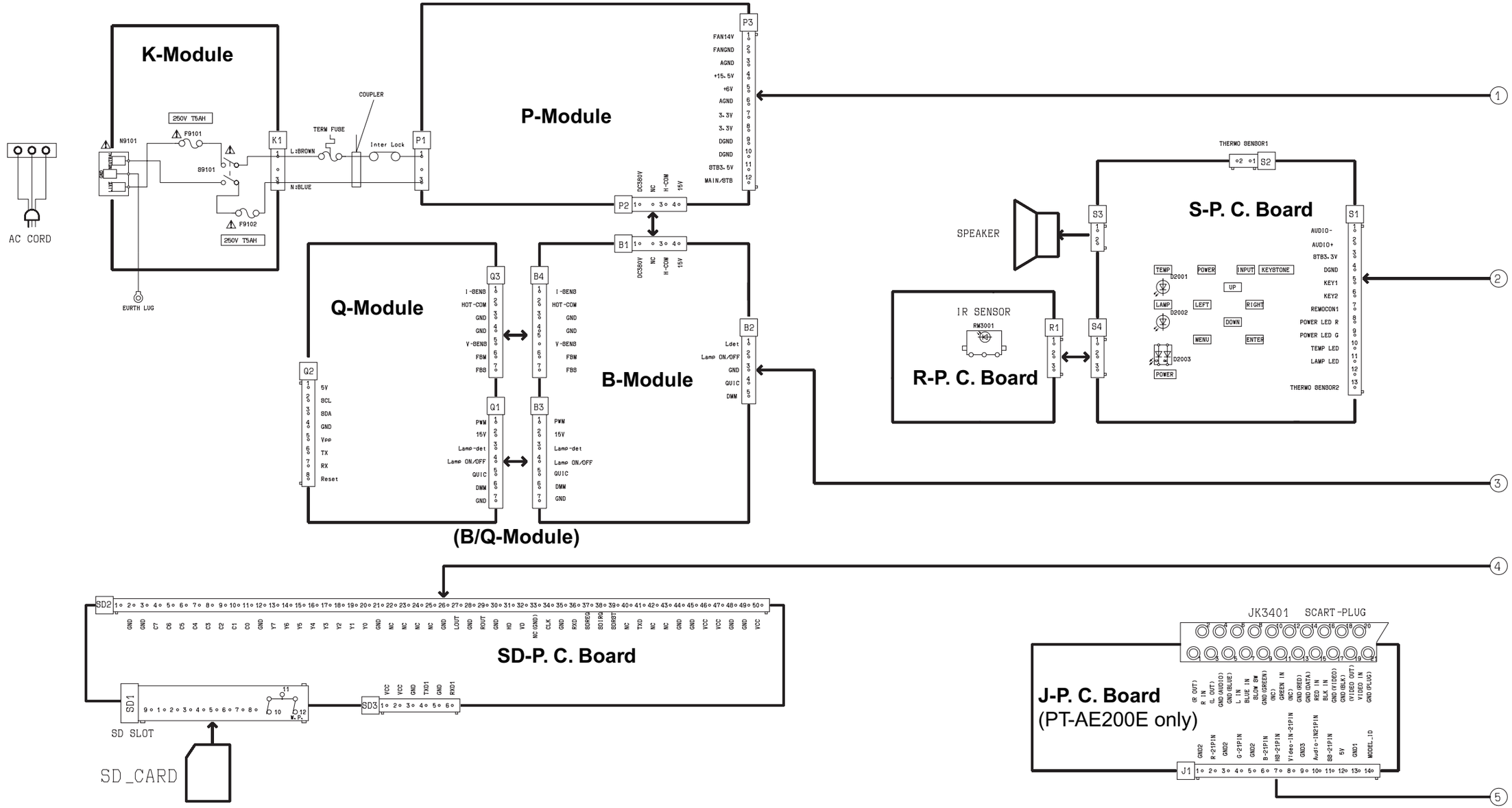
## Signal Processing (2/3)



## Signal Processing (3/3)

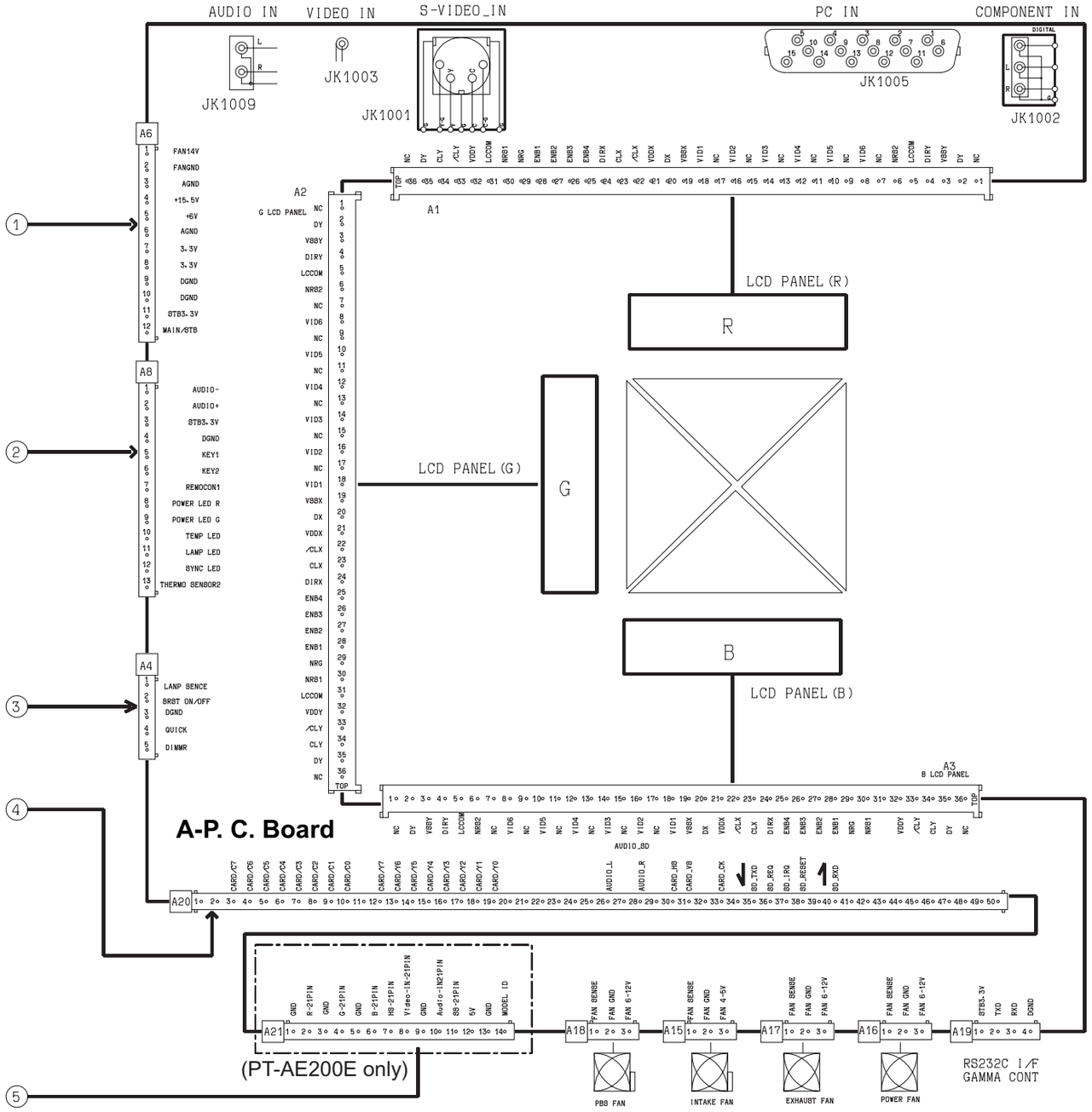


# Interconnection Block Diagram (1/2)




| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|

# Interconnection Block Diagram (2/2)




A1, A2, A3-2
15.0Vp-p 10ms/div (V-rate)

A1, A2, A3-6
5.0Vp-p 20us/div

A1-8, 10, 12, 14, 16, 18
12.0Vp-p 20us/div

A2-8, 10, 12, 14, 16, 18
12.0Vp-p 20us/div

A3-8, 10, 12, 14, 16, 18
12.0Vp-p 20us/div

A1, A2, A3-20
16.0Vp-p 10us/div (H-rate)

A1, A2, A3-22, 23
16.0Vp-p 0.5us/div

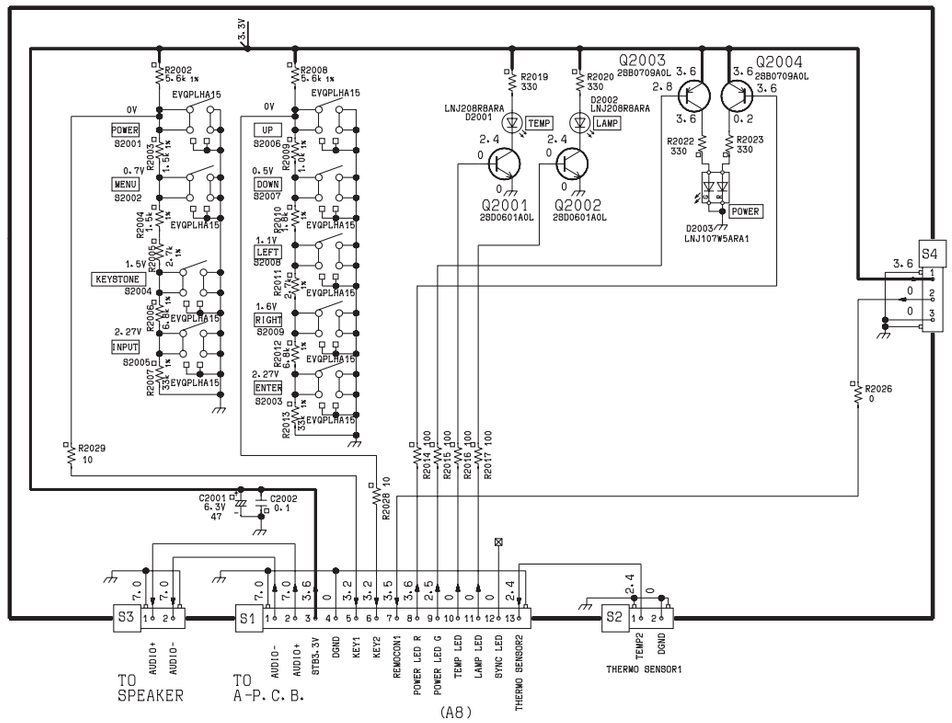
A1, A2, A3-25, 26, 27, 28
16.0Vp-p 0.5us/div

A1, A2, A3-29
16.0Vp-p 20us/div (H-rate)

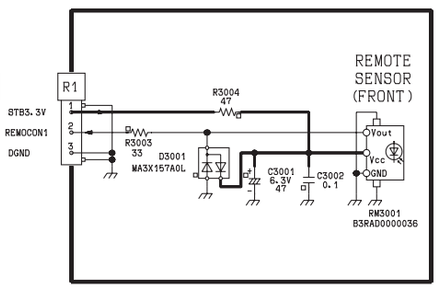
A1, A2, A3-30
5.0Vp-p 10us/div

A1, A2, A3-33, 34
15.0Vp-p 10us/div

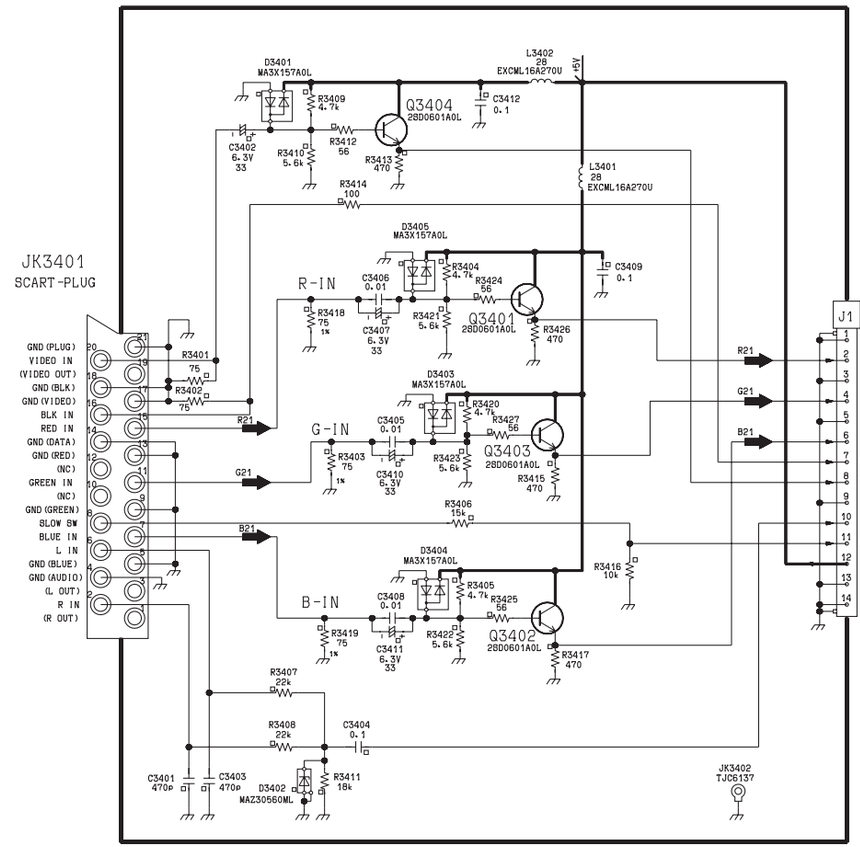
## S-P.C.BOARD TNPA2666




## R-P.C.BOARD TNPA2665




## J-P.C.BOARD TNPA2668 (PT-AE200E only)



# Schematic Diagram for Model PT-AE200U

**IMPORTANT SAFETY NOTICE**

THE SHADED AREA ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTE
HAZARDS.
WHEN SERVICING, IT IS ESSENTIAL THAT ONLY MANUFACTURER'S SPECIFIED PARTS BE USED FOR THE CRITICA
THE SCHEMATIC.

# Schematic Diagram for Model PT-AE200E

**Important Safety Notice**

Components identified by the international symbol ⚠ have special characteristics important for safety. When replacing any c
specified ones.

**Notes:**

1. **Resistor**

   All the resistors are carbon 1/4W resistors, unless marked as follows: The unit of resistance is an OHM [Ω] (K=1 000 M=1 000

   ○ : Nonflammable
   ⊠ : Metal Oxide
   △ : Solid
   ◎ : Metal Film
   ⊠ : Wire Wound
   ⊗ : Fuse

2. **Capacitor**

   ⊗ : Temperature Compensation
   ⁺⋕⁻ : Electrolytic
   Ⓜ : Polyester
   NP⋕ : Bipolar
   ⓜ : Metalized Polyester
   Ⓣ : Dipped Tantalum
   ⊠ : Polypropylene
   Ⓩ : Z-Type

3. **Coil**

   The unit of inductance is a μH, unless otherwise noted.

4. **Test Point**

   ● : Test Point

5. **Voltage Measurement**

   The voltage is measured by an electronic voltmeter receiving the colorbar signal when all the customer's controls are set to th

6. **Color code for the links between diagrams and circuit boards**

| From/To | | To/From | Color code |
|---|---|---|---|
| Block diagram | ⟷ | Schematic diagram | Magenta |
| Schematic diagram | ⟷ | Schematic diagram | Green |
| Schematic diagram | ⟷ | Circuit boards | Yellow |
| Schematic diagram | ⟷ | Waveforms | Cyan (Light blue) |

7. **HOT and COLD indications**

   The power circuit board contains a circuit area using a separate power supply to isolate the ground connection. The circuit is d
   diagram. Take the precautions below:

8. **This schematic diagram is the latest at the time of printing and the subject to change without notice.**

**Precautions:**

1. NEVER touch the HOT part or the HOT and COLD parts at the same time, or you may get an electric shock.
2. NEVER short-circuit the HOT and COLD circuits, or the fuse may blow and the parts may break.
3. NEVER connect an instrument such oscilloscope to the HOT and COLD circuit simultaneously, or the fuse may blow.Connect the grou
4. MAKE SURE to unplug the power cord from the power outlet before removing the chassis.

**ICE**

IPORTANT FOR PROTECTION FROM FIRE AND ELECTRICAL SHOCK

SED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF

**e**

ty. When replacing any of these components, use only the manufacturer's

M [Ω] (K=1 000 M=1 000 000).

er's controls are set to the standard condition.

nnection. The circuit is defined by HOT and COLD indications in the schematic

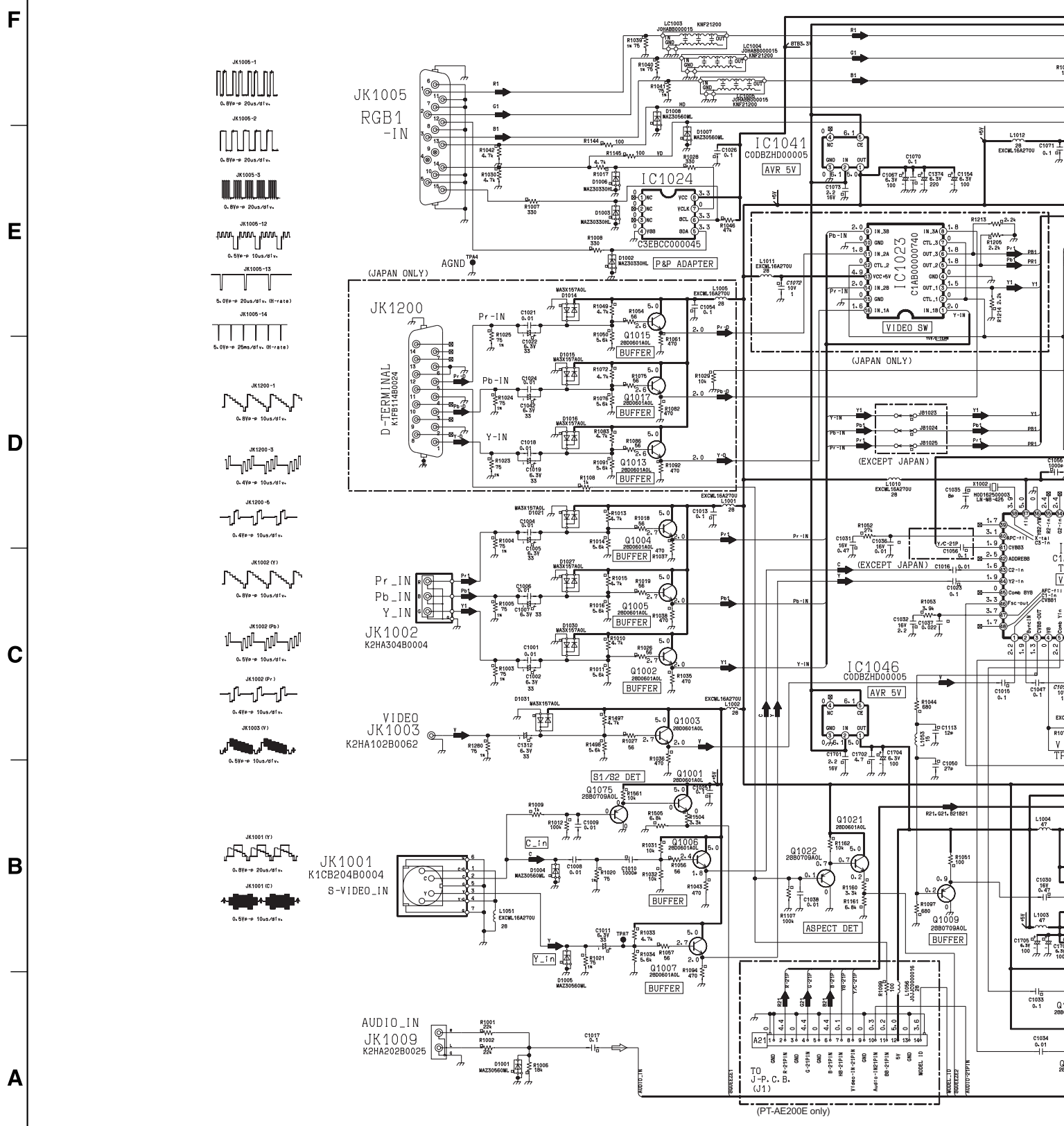
**notice.**

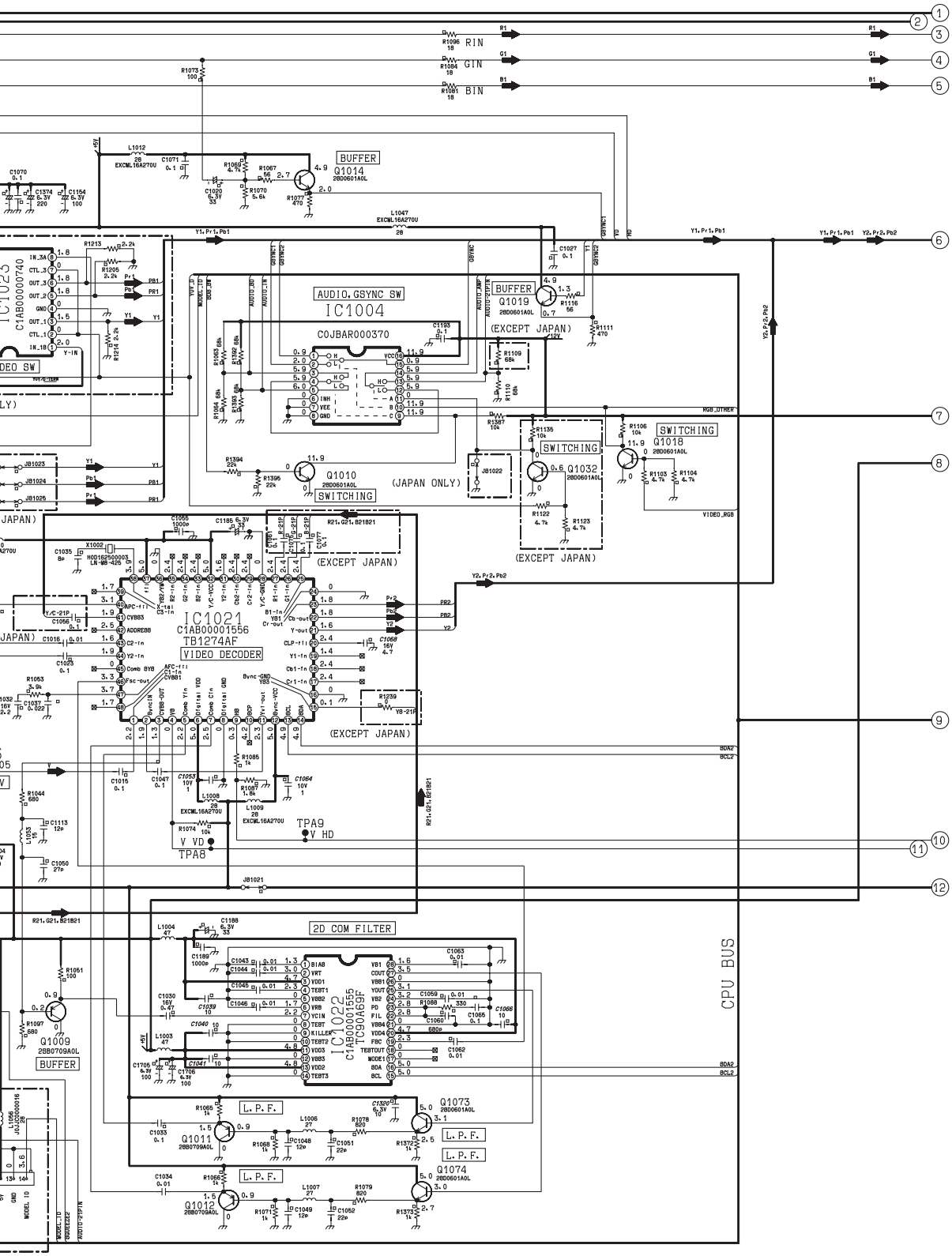
tric shock.

may blow.Connect the ground of instruments to the ground of the circuit being measured.

# 11.1. A-P.C.Board (1/5)

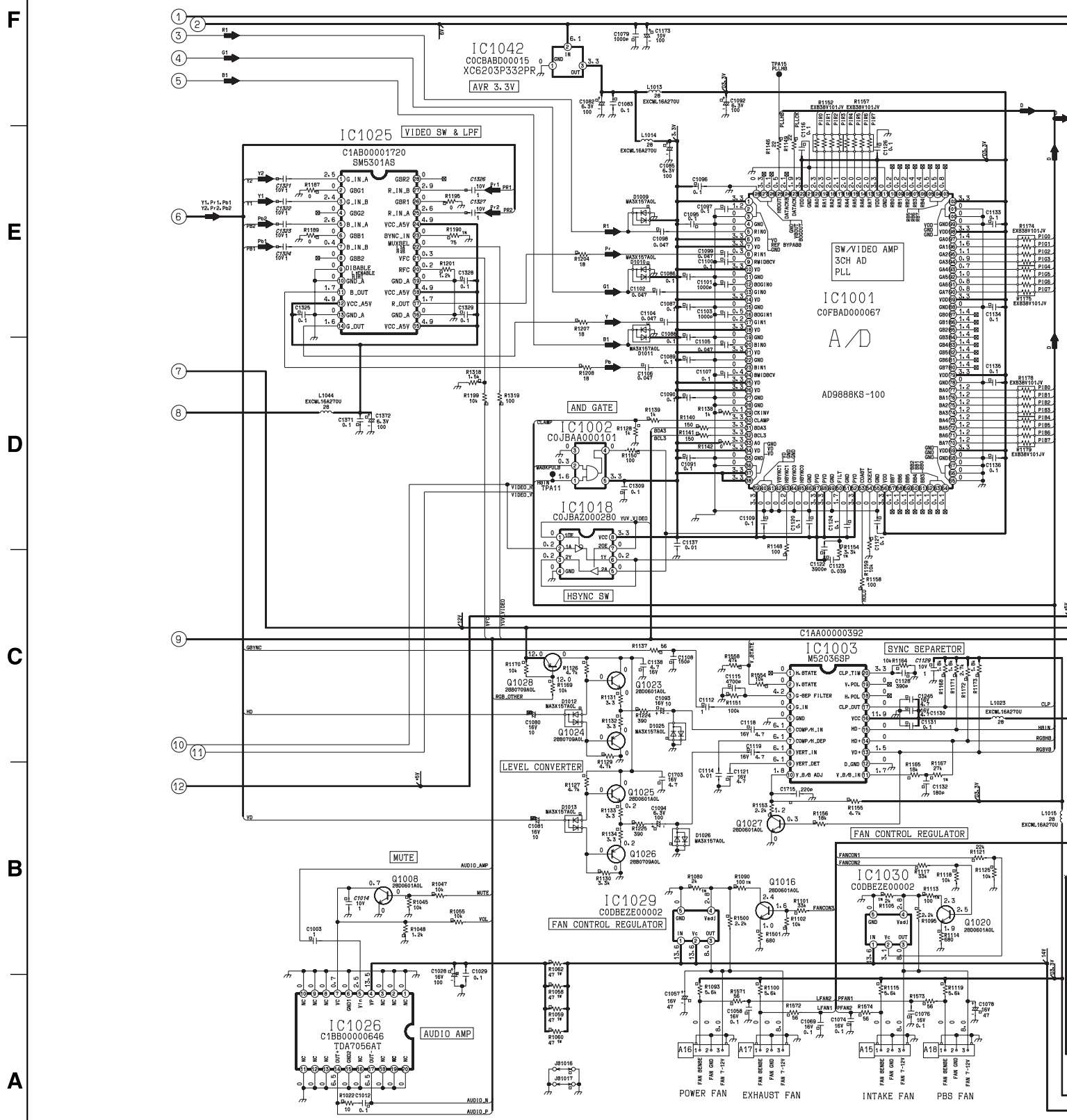
## A-P.C.BOARD TXANP01PRQZ (1/5)

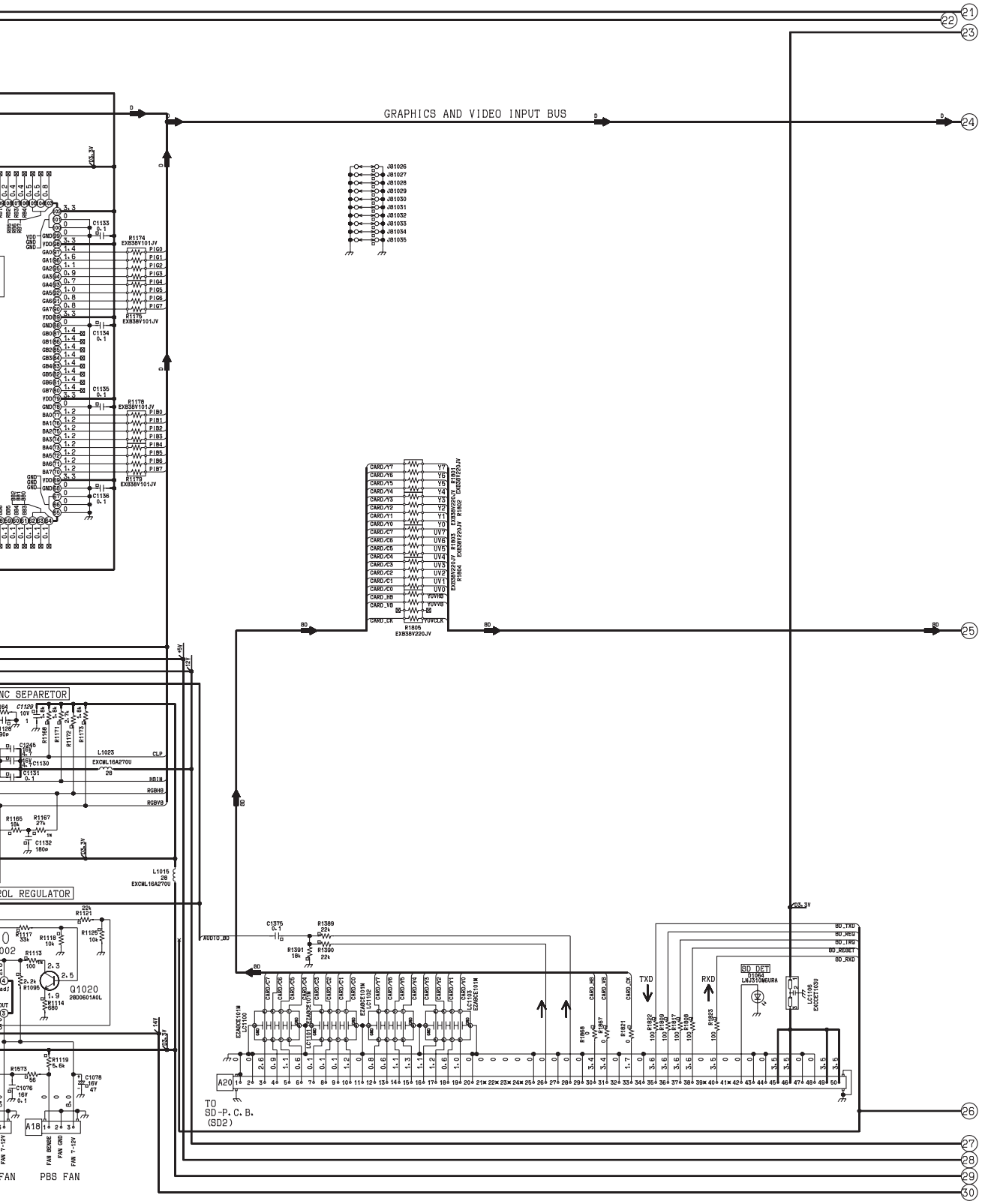



RIN
GIN
BIN
BUFFER
Q1014
AUDIO, GSYNC SW
IC1004
C0JBAR000370
(EXCEPT JAPAN)
BUFFER
Q1019
SWITCHING
Q1018
SWITCHING
Q1032
Q1010
SWITCHING
(JAPAN ONLY)
(EXCEPT JAPAN)
(EXCEPT JAPAN)
IC1021
C1AB00001556
TB1274AF
VIDEO DECODER
(EXCEPT JAPAN)
2D COM FILTER
IC1022
C1AB00001555
TC90A69F
CPU BUS
L.P.F.
L.P.F.
L.P.F.
L.P.F.
Q1073
Q1074
Q1011
Q1012
Q1009
BUFFER
TPA9
V HD
TPA8
V VD

# 11.2. A-P.C.Board (2/5)

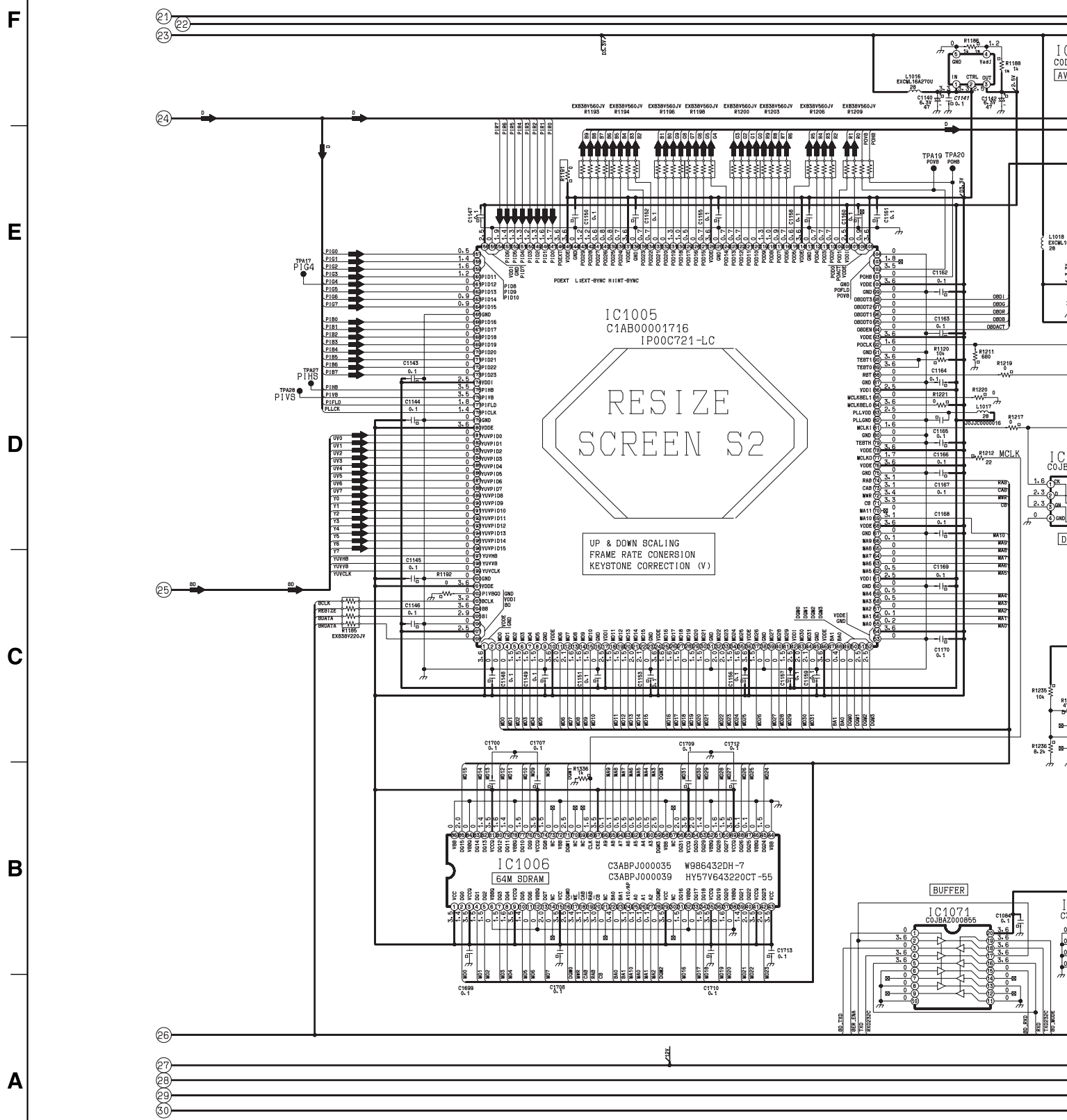
## A-P.C.BOARD TXANP01PRQZ (2/5)

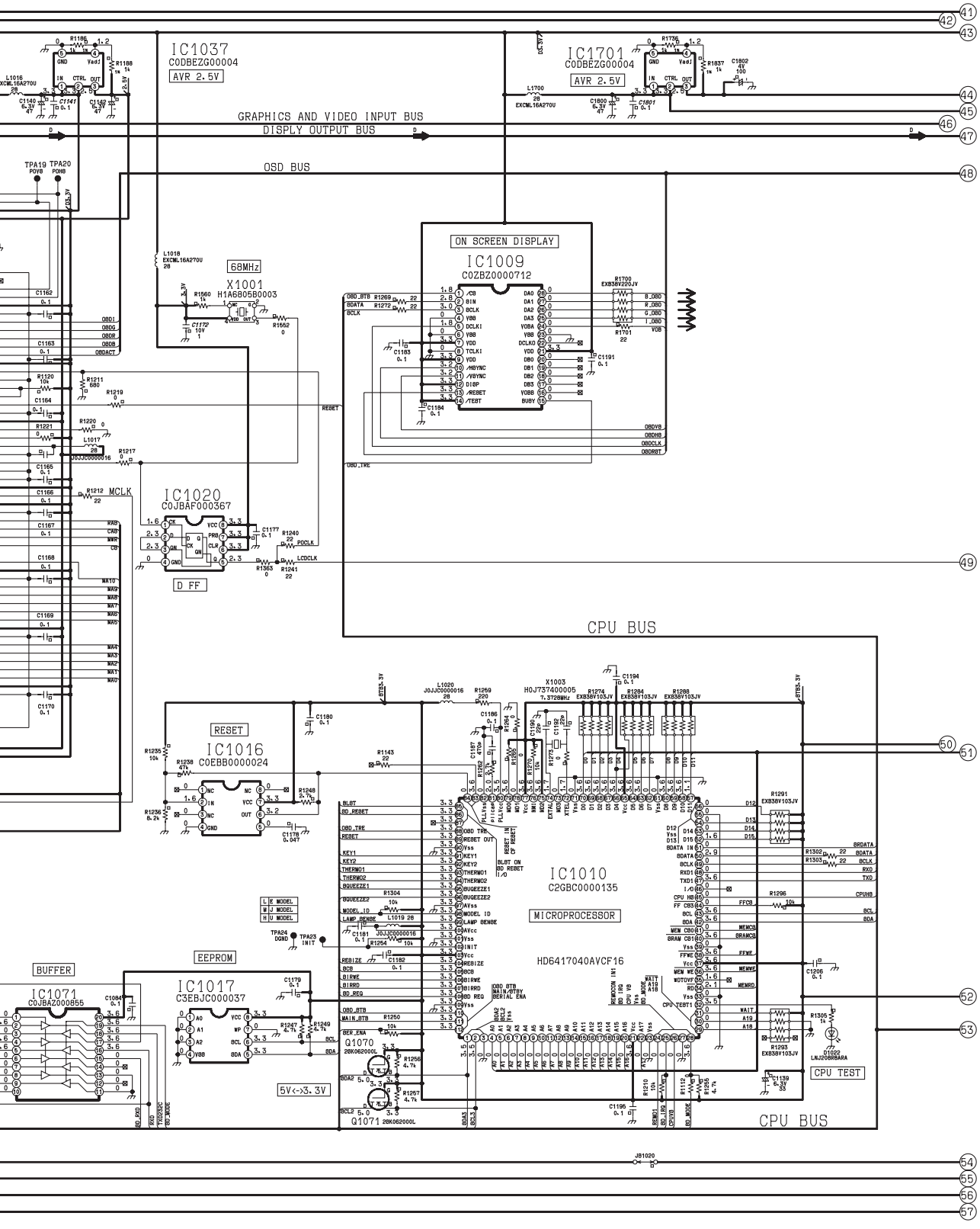



GRAPHICS AND VIDEO INPUT BUS
TO
SD-P.C.B.
(SD2)
FAN 7-12V
PBS FAN
FAN GND
FAN 7-12V
SD_DET
TXD
RXD

# 11.3. A-P.C.Board (3/5)

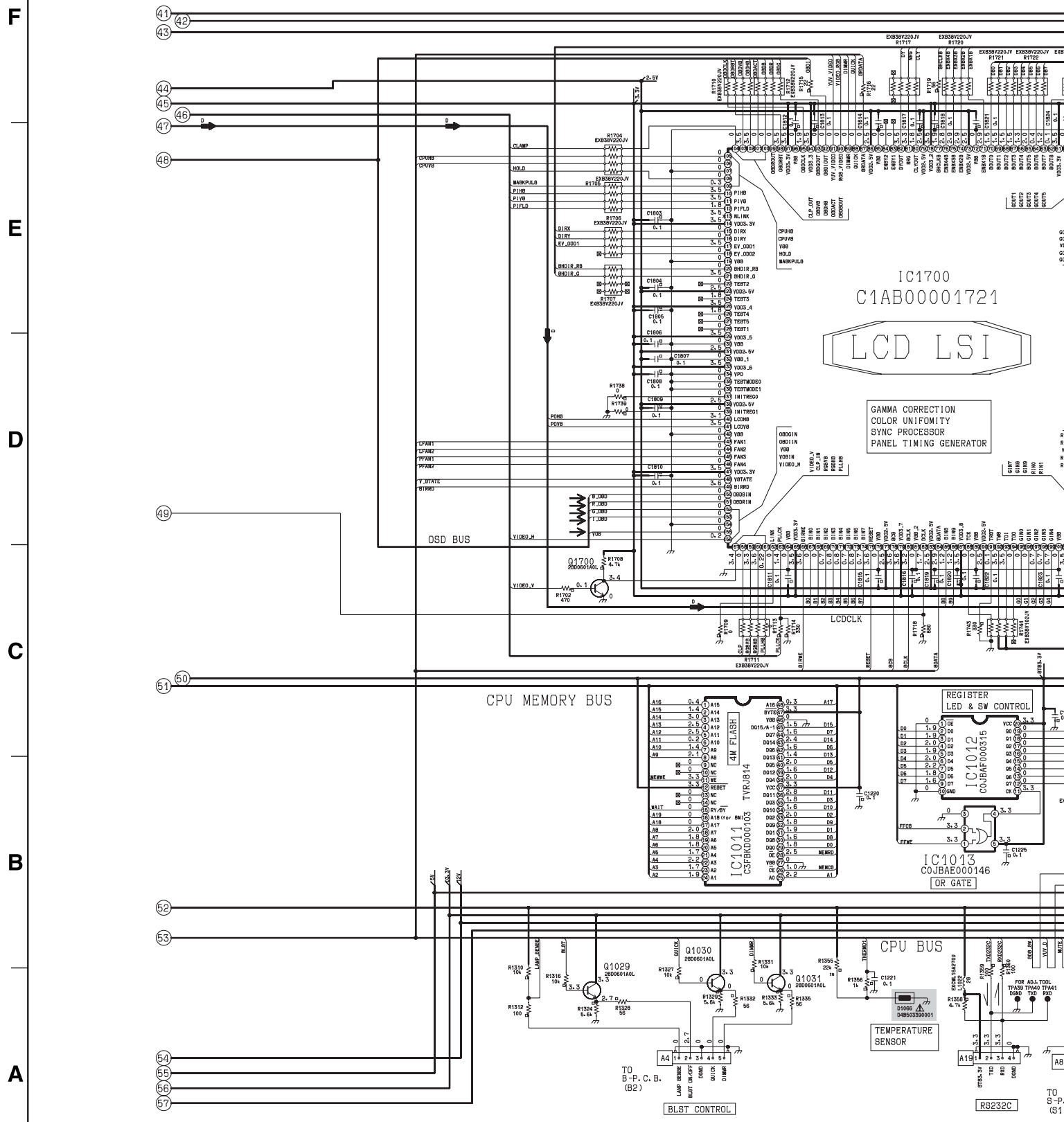
## A-P.C.BOARD TXANP01PRQZ (3/5)

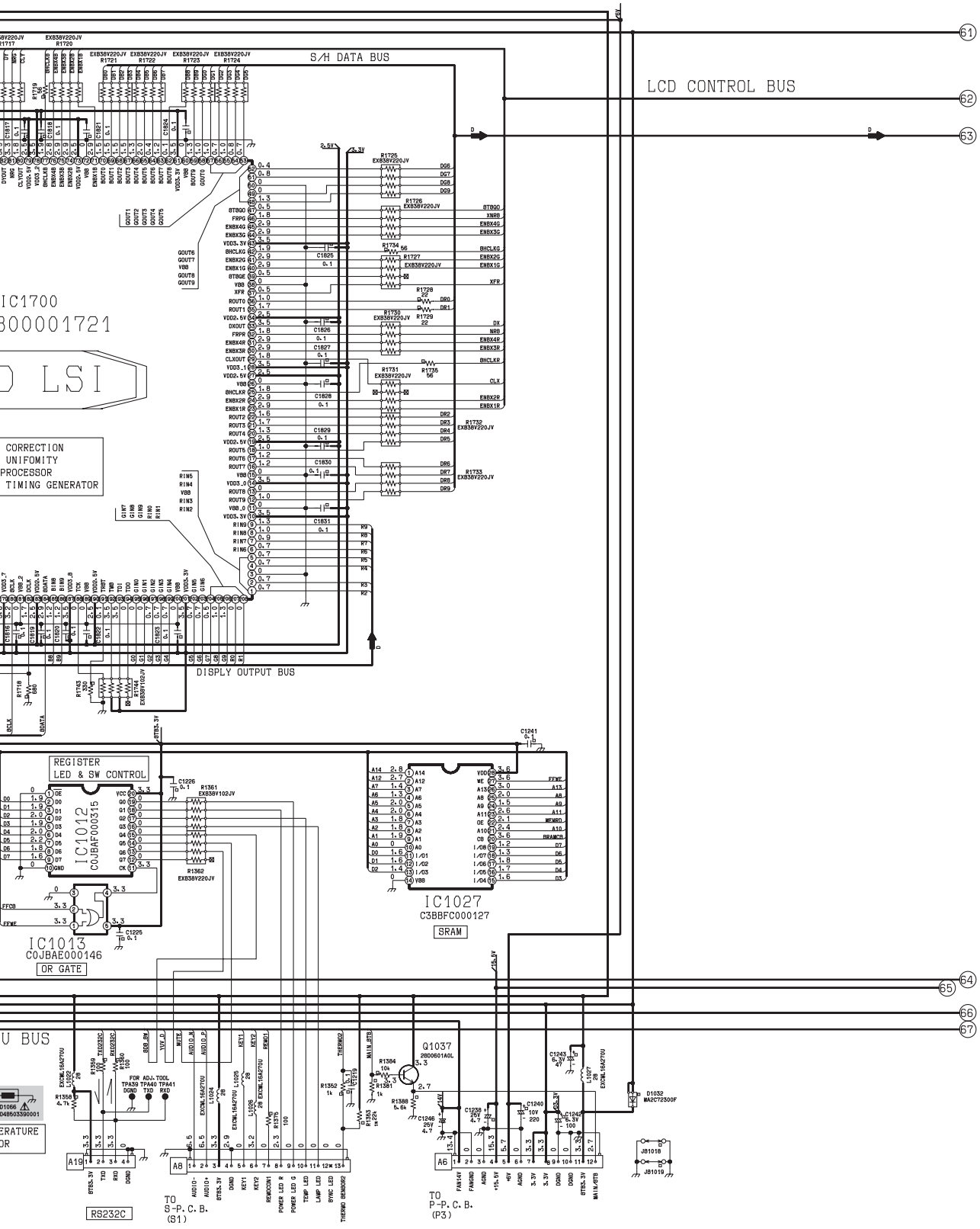



IC1037
C0DBEZG00004
AVR 2.5V
IC1701
C0DBEZG00004
AVR 2.5V
GRAPHICS AND VIDEO INPUT BUS
DISPLY OUTPUT BUS
OSD BUS
ON SCREEN DISPLAY
IC1009
C0ZBZ0000712
68MHz
X1001
H1A680580003
IC1020
C0JBAF000367
D FF
MCLK
RESET
IC1016
C0EBB0000024
CPU BUS
X1003
H0J737400005
7.37280MHz
IC1010
C2GBC0000135
MICROPROCESSOR
HD6417040AVCF16
EEPROM
IC1017
C3EBJC000037
BUFFER
IC1071
C0JBAZ000855
Q1070
2SK062000L
Q1071
2SK062000L
5V<->3.3V
CPU TEST
CPU BUS

# 11.4. A-P.C.Board (4/5)

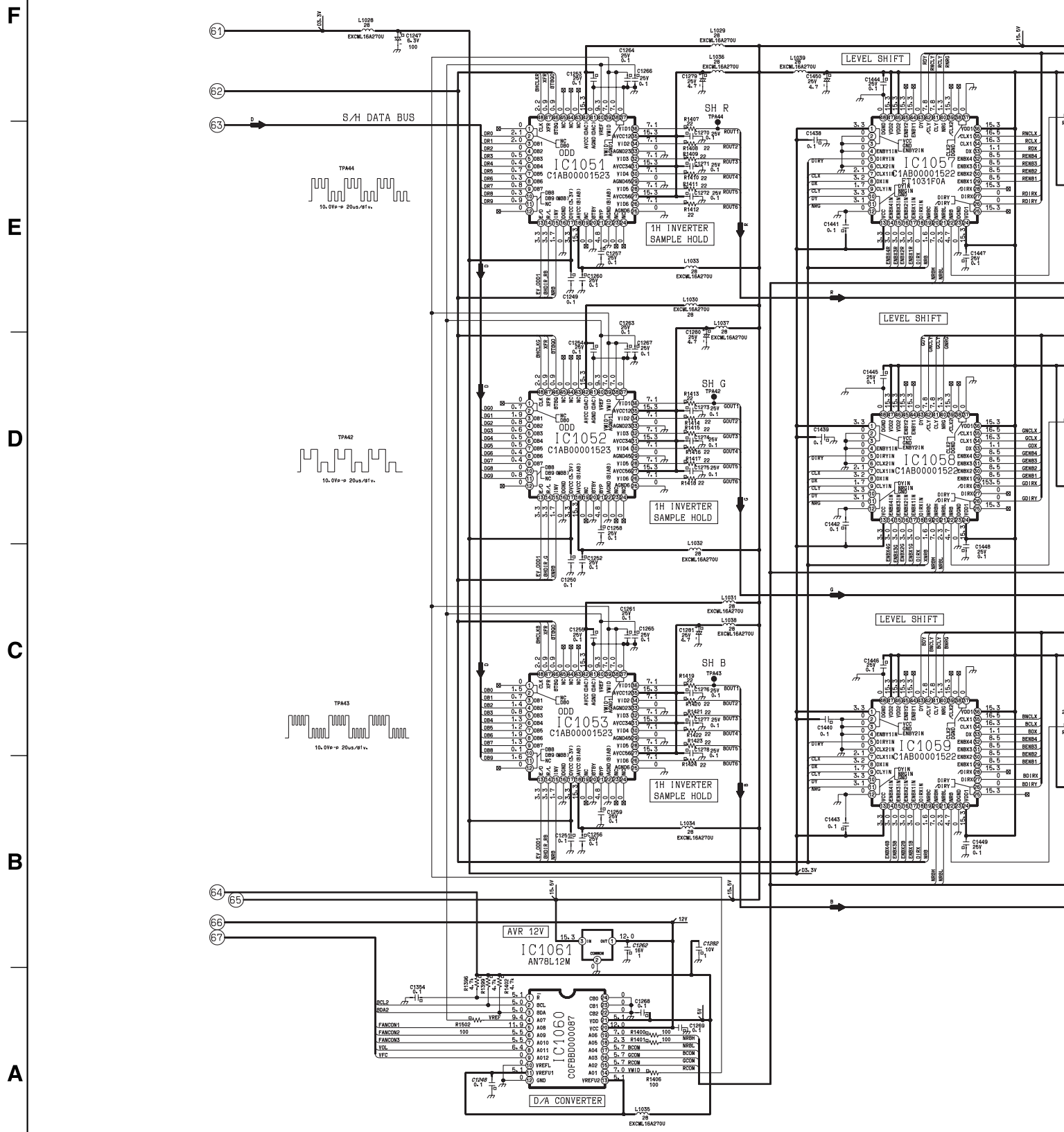
## A-P.C.BOARD TXANP01PRQZ (4/5)

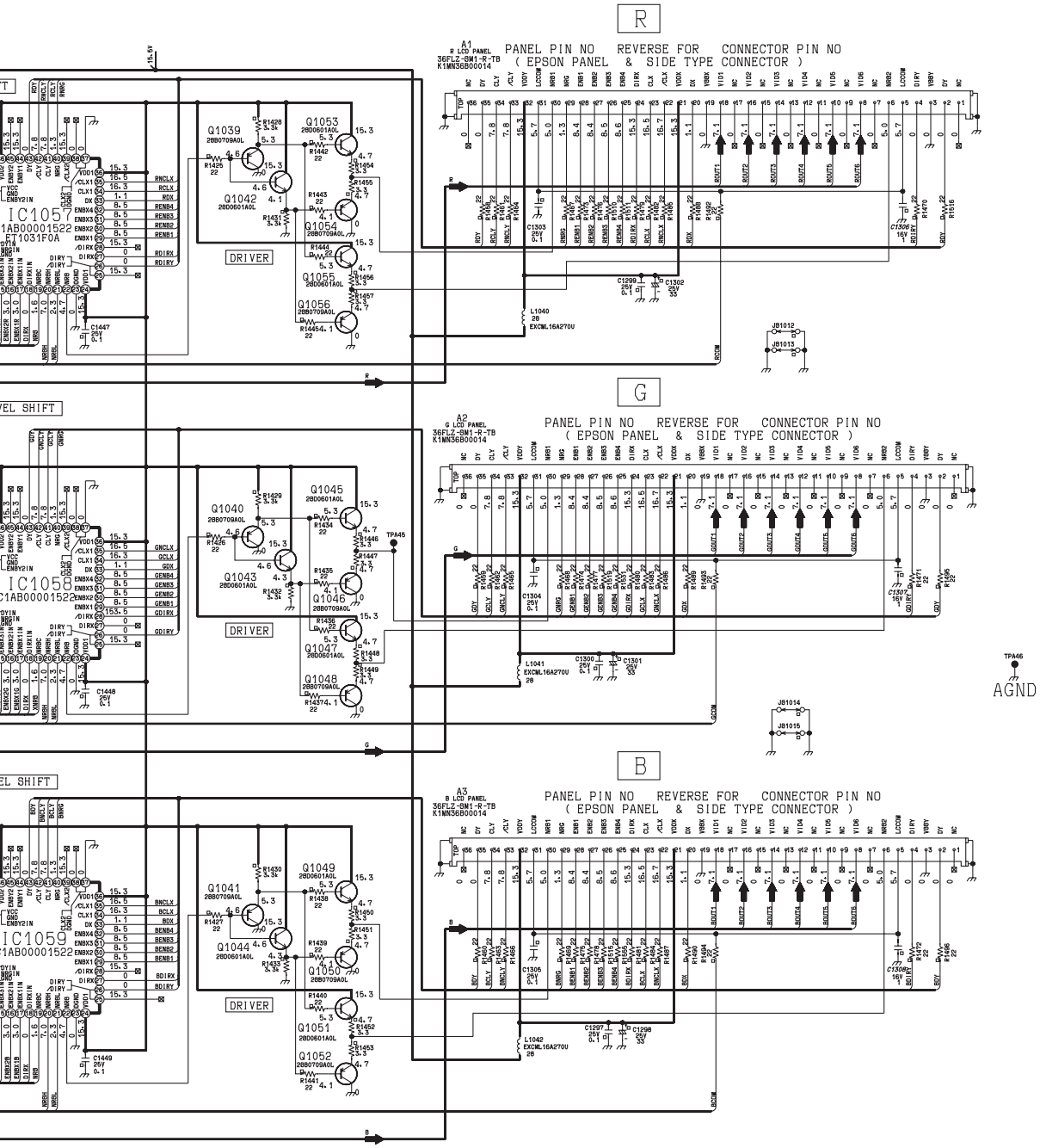



S/H DATA BUS
LCD CONTROL BUS
DISPLY OUTPUT BUS
CORRECTION
UNIFOMITY
PROCESSOR
TIMING GENERATOR
REGISTER
LED & SW CONTROL
IC1012
C0JBAF000315
IC1027
C3BBFC000127
SRAM
IC1013
C0JBAE000146
OR GATE
RS232C
TO
S-P.C.B.
(S1)
TO
P-P.C.B.
(P3)
FOR ADJ. TOOL
TP439 TP440 TP441
DGND TXD RXD
61
62
63
64
65
66
67

# 11.5. A-P.C.Board (5/5)

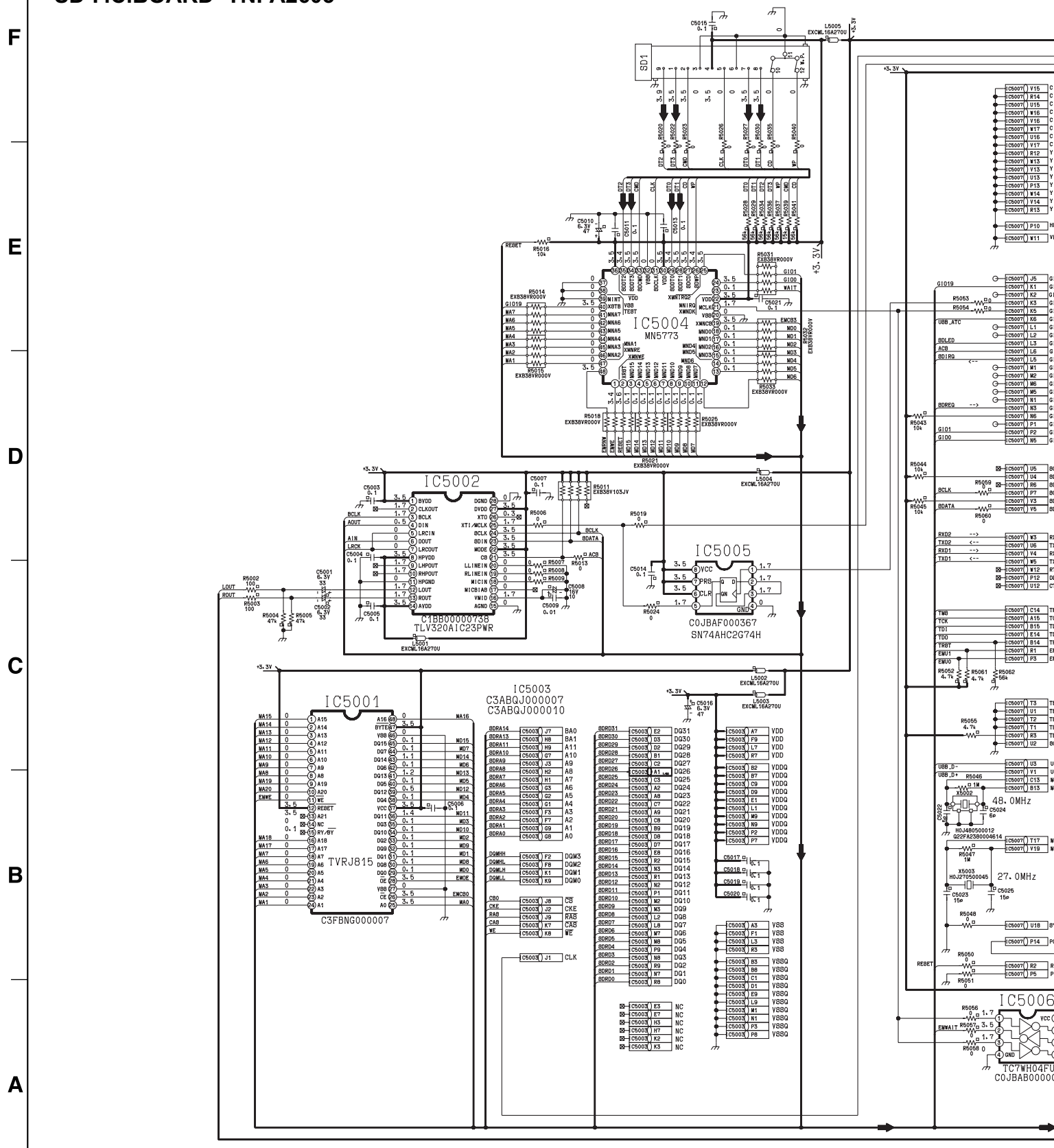
## A-P.C.BOARD TXANP01PRQZ (5/5)

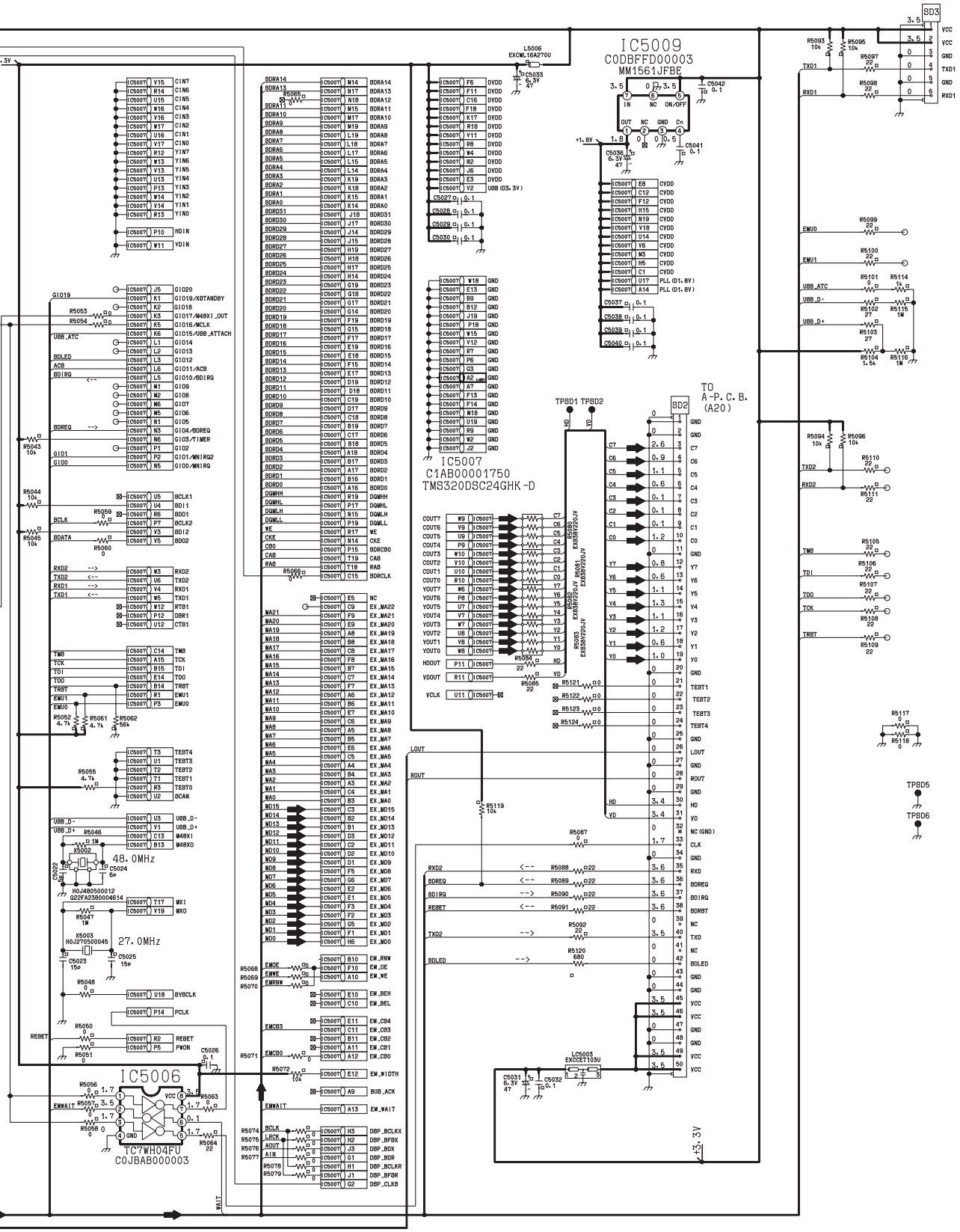



R
A1
R LCD PANEL
36FLZ-SM1-R-TB
K1MN36B00014
PANEL PIN NO REVERSE FOR CONNECTOR PIN NO
( EPSON PANEL & SIDE TYPE CONNECTOR )
DRIVER
G
A2
G LCD PANEL
36FLZ-SM1-R-TB
K1MN36B00014
PANEL PIN NO REVERSE FOR CONNECTOR PIN NO
( EPSON PANEL & SIDE TYPE CONNECTOR )
DRIVER
TPA45
TPA46
AGND
B
A3
B LCD PANEL
36FLZ-SM1-R-TB
K1MN36B00014
PANEL PIN NO REVERSE FOR CONNECTOR PIN NO
( EPSON PANEL & SIDE TYPE CONNECTOR )
DRIVER

# 11.6. SD-P.C.Board

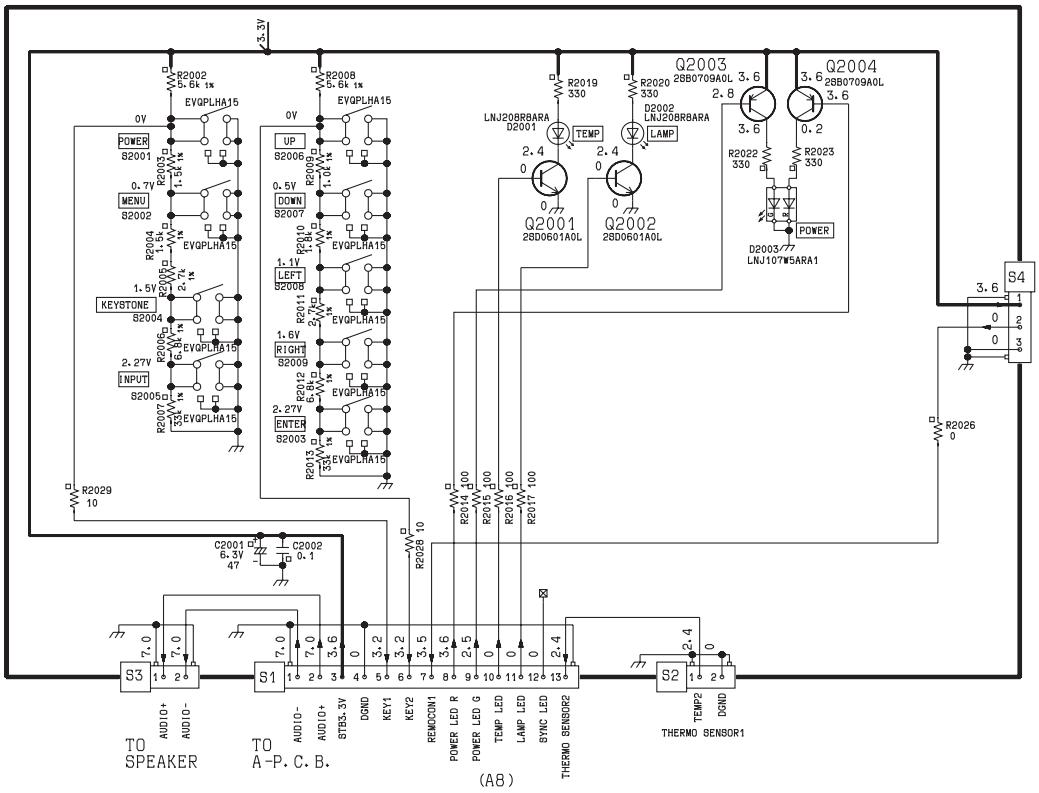
## SD-P.C.BOARD TNPA2605



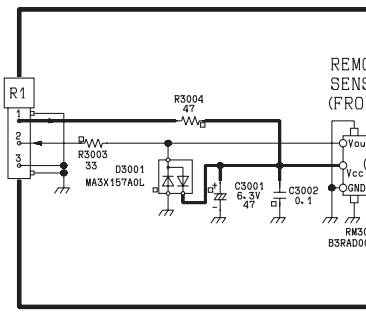

IC5009
C0DBFFD00003
MM1561JFBE
IC5007
C1AB00001750
TMS320DSC24GHK-D
IC5006
TC7WH04FU
C0JBAB000003
TO
A-P.C.B.
(A20)
SD2
SD3
48.0MHz
27.0MHz
+3.3V
+1.8V
TPSD1
TPSD2
TPSD5
TPSD6

# 11.7. S-P.C.Board, R-P.C.Board, J-P.C.Board

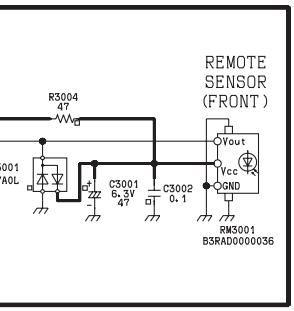
## S-P.C.BOARD TNPA2666



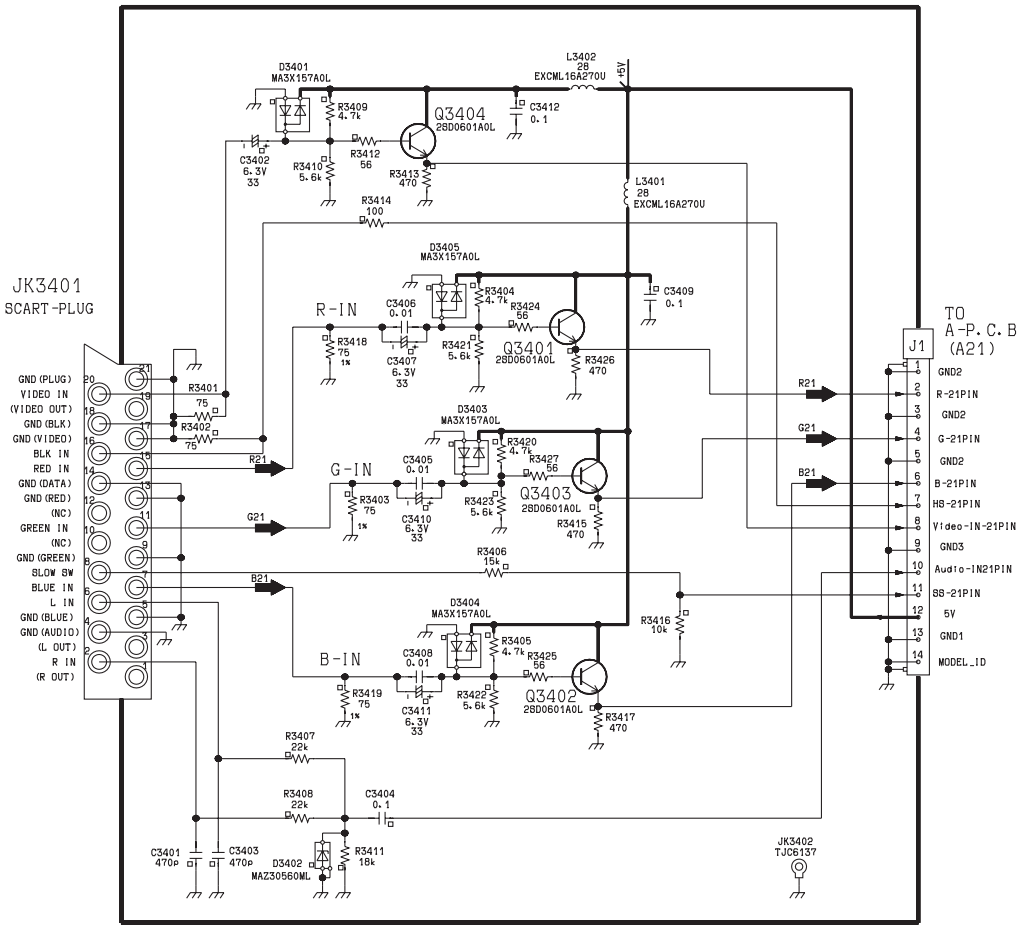

## R-P.C.BOARD TNPA26



## OARD TNPA2665



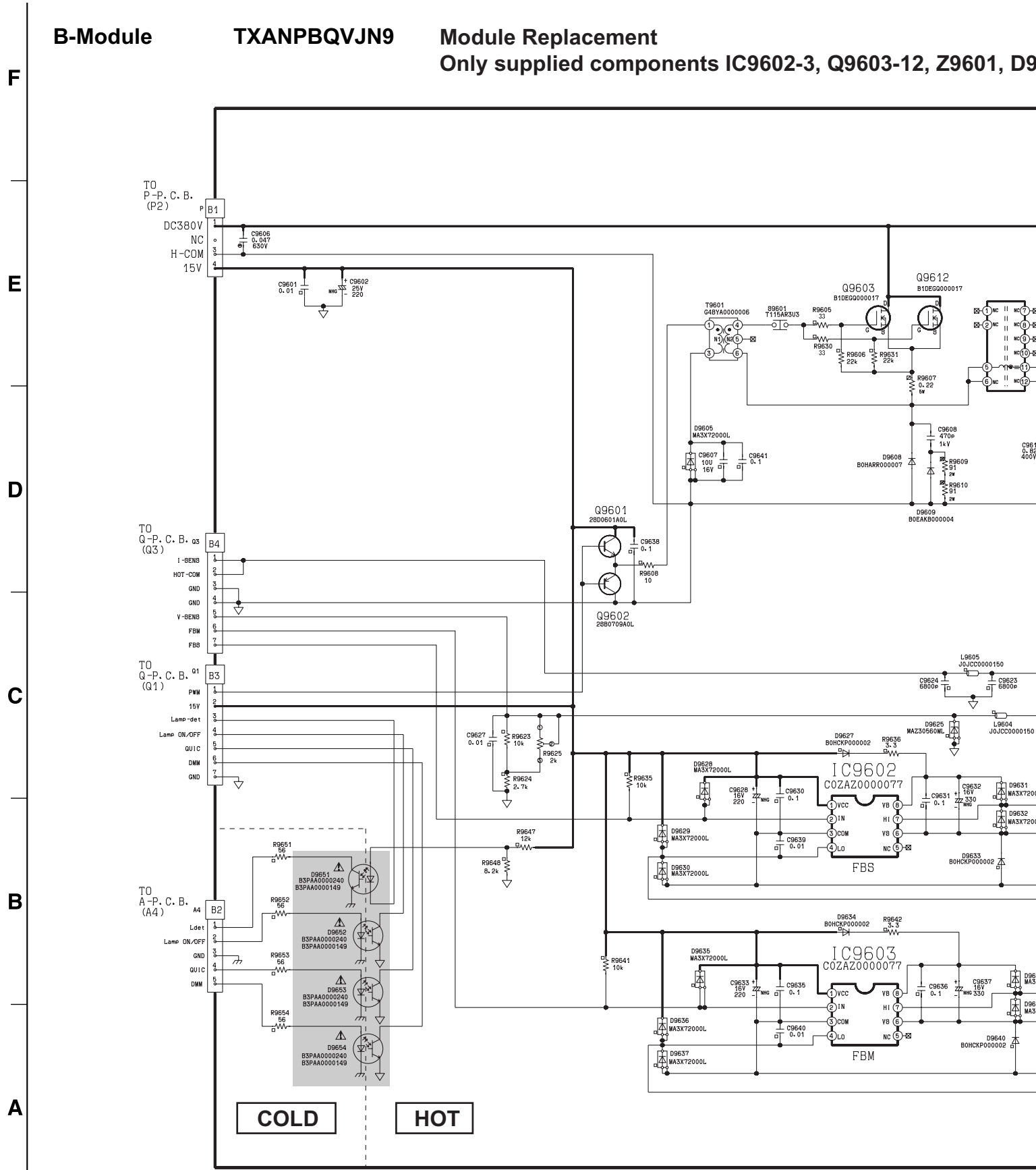

## J-P.C.BOARD TNPA2668 (PT-AE200E only)



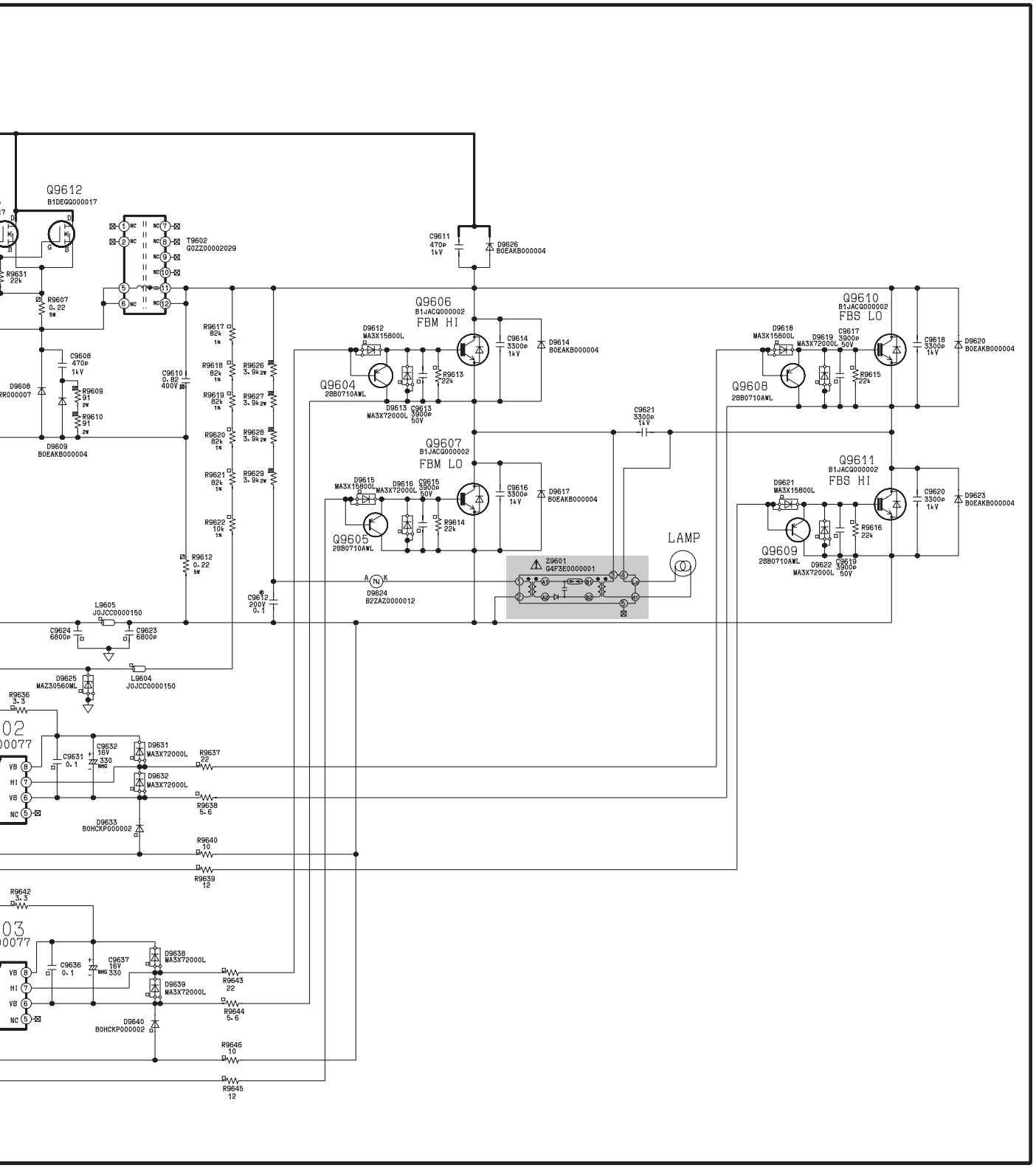
## 11.8. B-Module

**B-Module** **TXANPBQVJN9** **Module Replacement**

**Only supplied components IC9602-3, Q9603-12, Z9601, D9**

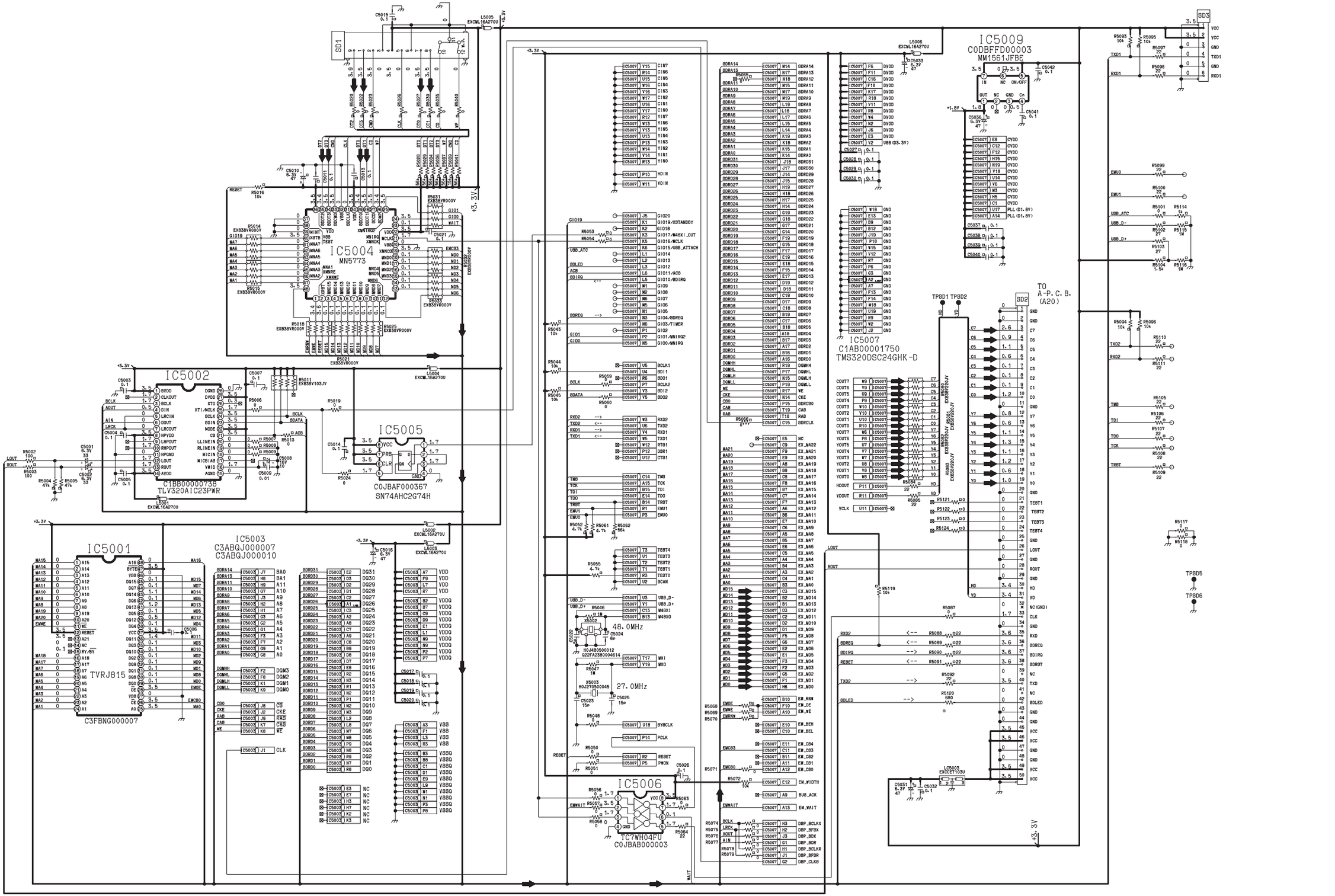


## 03-12, Z9601, D9612-13, D9615-16, D9618-19,D9621-22

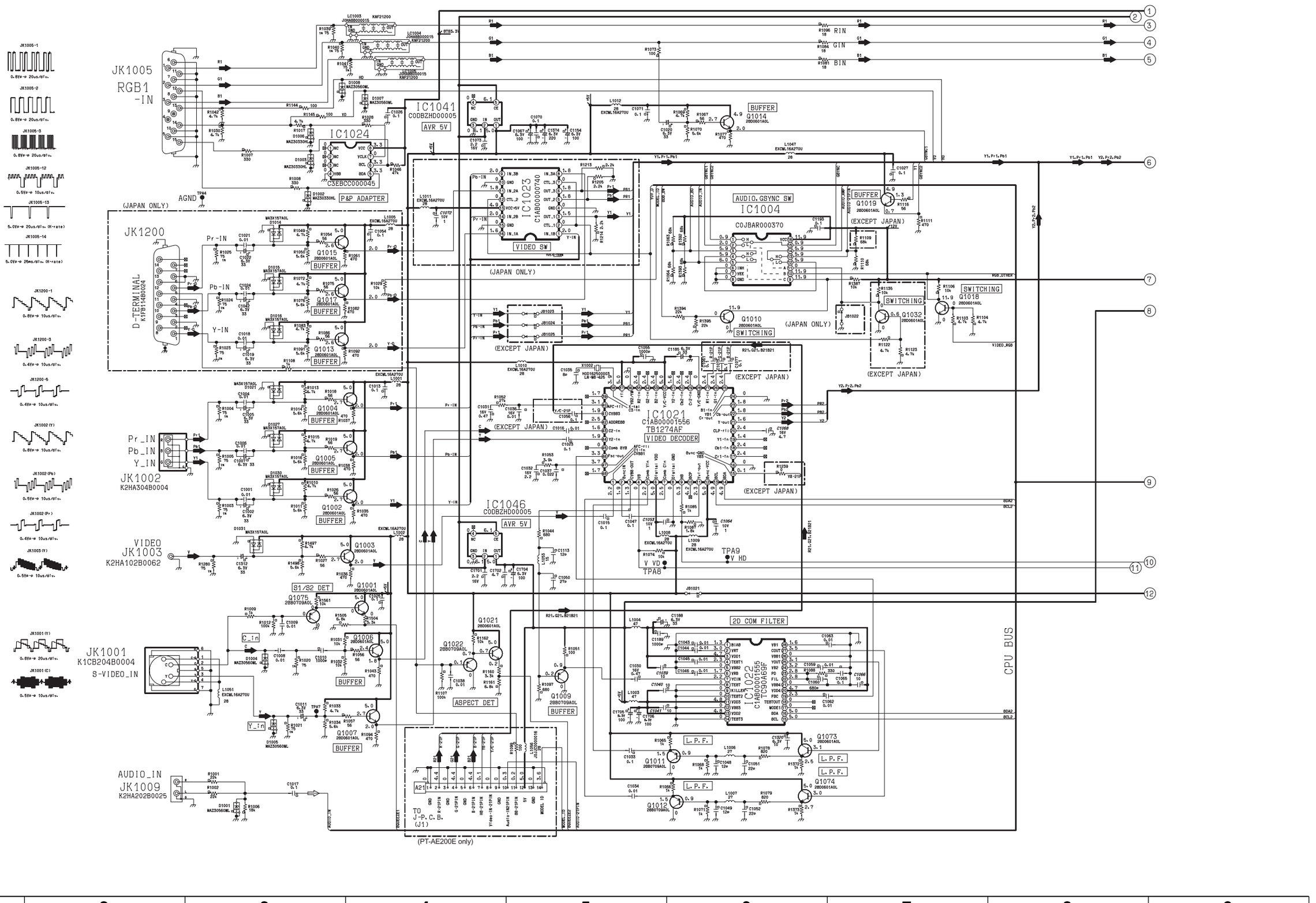



5 | 6 | 7 | 8 | 9

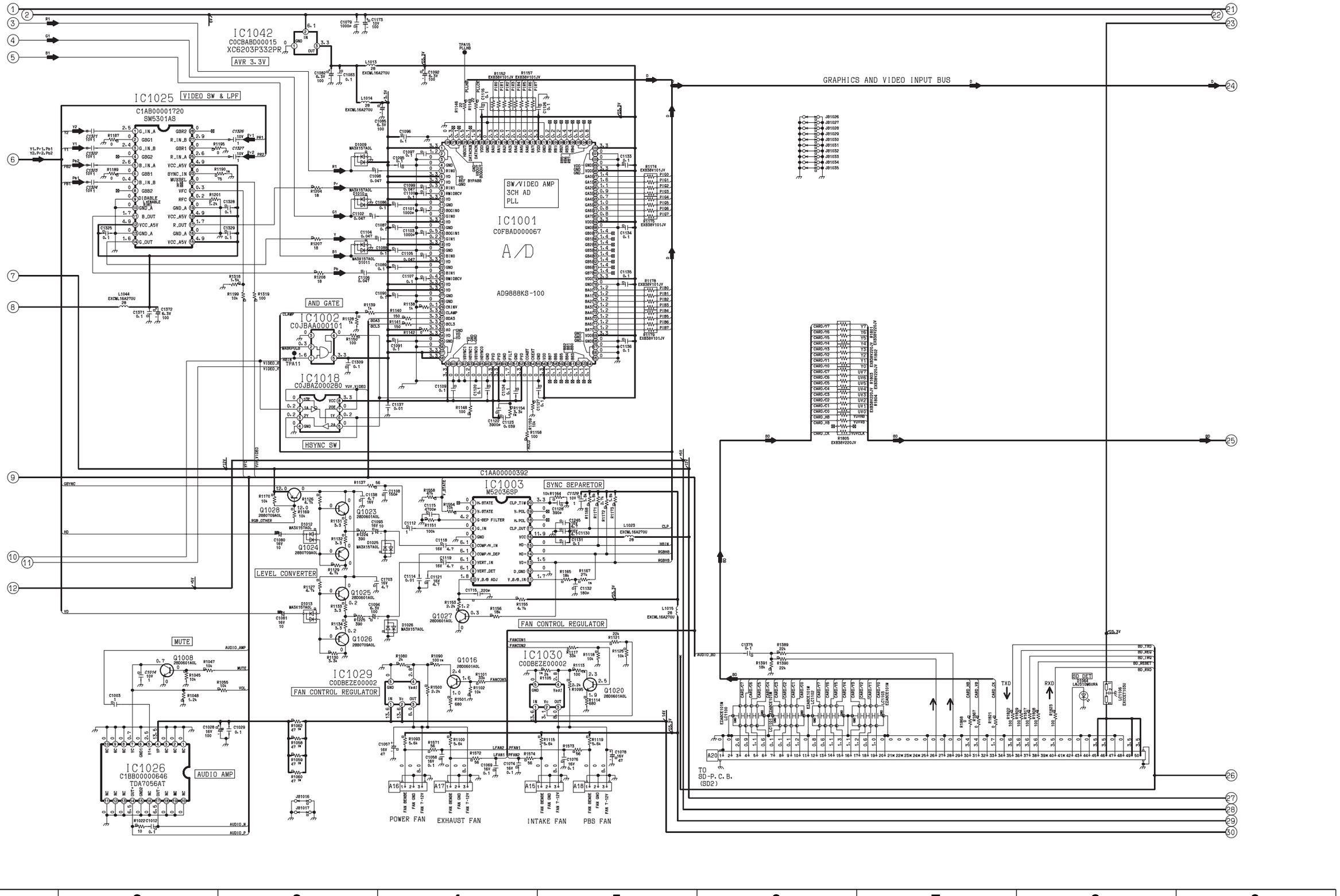
# SD-P.C.BOARD TNPA2605



# A-P.C.BOARD TXANP01PRQZ (1/5)



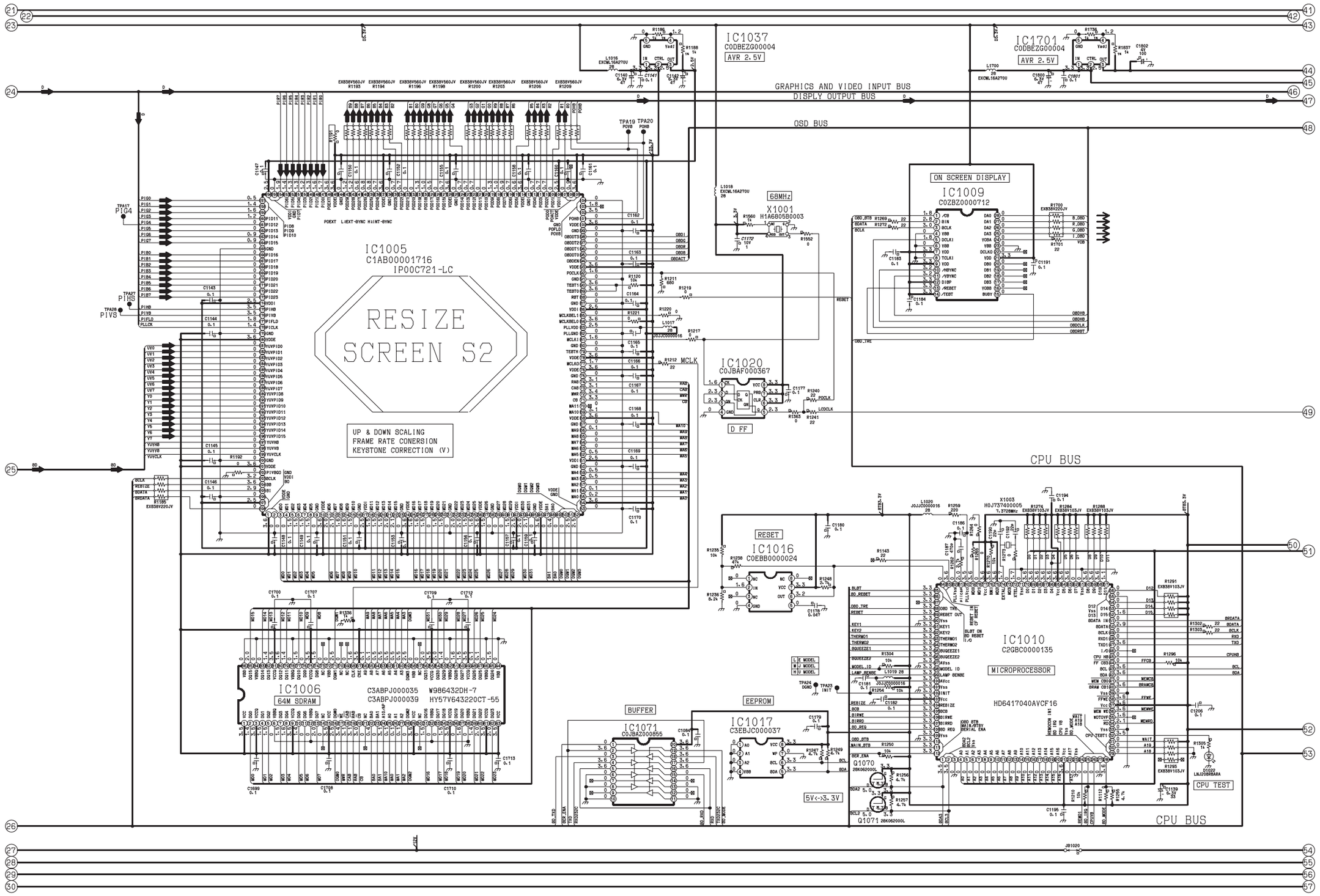
# A-P.C.BOARD TXANP01PRQZ (2/5)




1 2 3 4 5 6 7 8 9

A B C D E F

# A-P.C.BOARD TXANP01PRQZ (3/5)



# A-P.C.BOARD TXANP01PRQZ (4/5)